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Asia

Economic
Research
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Supplement 2 to WAS-27

Review of Agriculture in 1981 and Outlook for 1982

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SEP 08 1982

U.S. DEPT. OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

Received



ABSTRACT

Agricultural production in Asia and Oceania improved in 1981, with record harvests of rice and wheat. Production was up 6 percent in South Asia, 4 percent in East Asia, and 5 percent in Oceania. Per capita agricultural production was up in all countries in the region except Afghanistan, Taiwan, Japan, and New Zealand. The balance of U.S. agricultural trade with the region increased 14 percent as exports reached \$12.3 billion and imports fell to \$3.5 million.

Keywords: Asia, Oceania, agricultural production, agricultural trade, economic situation.

FOREWORD

This report provides a description and analysis of recent developments in Asia and Oceania that affect the agricultural trade of the United States. The area covered includes Asian countries from Afghanistan eastward (except the People's Republic of China) and Oceania, principally Australia and New Zealand.

The 1981 performance of the agricultural sectors of the major countries is examined in the context of overall economic and policy developments. Against this background and the situation in early 1982, the near-term outlook for production, utilization, and trade is discussed. Three special articles are also included.

E. Wayne Denney and William T. Coyle directed and coordinated preparation of this report. The sections were written by Lois A. Caplan, William T. Coyle, E. Wayne Denney, John H. Dyck, J. Albert Evans, Amjad H. Gill, William F. Hall, Allen O. Johnson, Maurice R. Landes, Richard F. Nehring, and Leslie E. Ross. Patricia Abrams and Peggy McConkey provided typing assistance. Grateful acknowledgment is extended to the staff of the Foreign Agricultural Service, especially to those agricultural counselors and attaches whose reports were drawn on extensively.

Any comments, suggestions, or questions concerning this report or inquiries regarding agriculture in the countries covered may be directed to Asia Branch, International Economics Division, Economic Research Service, USDA, Washington, D.C. 20250.

The International Economics Division's program of agricultural situation and outlook analysis and reporting includes the following regularly scheduled publications: The *World Agricultural Situation and Outlook* published three times annually; regional reports on Asia, Africa, the Middle East, China, Eastern Europe, the Soviet Union, Western Europe, and the Western Hemisphere published annually; indices of regional food and agricultural production published annually; the *Foreign Agricultural Trade of the United States* published bi-monthly; the *Food Aid Needs and Availabilities Report* published semi-annually; and the *Outlook for U.S. Agricultural Exports* published quarterly. Information on obtaining these reports is enclosed in the back of this report.

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EXPLANATORY NOTES

Production is usually reported by calendar year. This includes crops harvested during the spring, summer, and autumn of 1981 plus some crops, such as rice, harvested mainly in 1981 but also continuing into early 1982. Unless otherwise stated, references to years are calendar years. Unless otherwise specified, split years (for example, 1979/80) mean July-June.

The share of total production, which is calculated in the tables for most country statements, is based on 1969-71 average producer prices for each commodity. Using these prices, the total value of agricultural production during 1981 is derived.

GNP refers to Gross National Product and GDP refers to Gross Domestic Product. HYV refers to high-yielding varieties of a crop. All tons are metric. Dollars are U.S.

dollars. On a table, a dash indicates zero or negligible quantities; NA indicates that data are not available or not applicable. Rice data are for milled rice unless otherwise specified.

Subregions are defined as follows unless otherwise specified: East Asia = Burma, Hong Kong, Indonesia, Japan, South Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand. South Asia = Afghanistan, Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Centrally Planned Asia = Democratic People's Republic of Korea (DPRK), Kampuchea, Laos, and Vietnam. Oceania = Australia and New Zealand.

Because of revision, numbers in this report may differ from those previously reported. This report is based primarily on information available by June 15, 1982.



U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 8710-72 (4) ECONOMIC RESEARCH SERVICE

ASIA

REVIEW OF AGRICULTURE IN 1981 AND OUTLOOK FOR 1982

EAST ASIA

Real economic growth in East Asian countries during 1981 varied from a low of 4 percent in Japan to a high of 10 percent in Hong Kong and Singapore. For the second consecutive year, weak personal consumption expenditures constrained growth in Japan. The trade-dominated economies of Hong Kong and Singapore were the biggest gainers, while petroleum revenues helped Indonesia raise its GNP by 7 percent, even though its foreign exchange reserves declined 7 percent to \$6.1 billion. Petroleum earnings and strong internal demand enabled Malaysia's economy to grow by 7 percent, despite higher imports and a weak agricultural performance. South Korea's 7-percent growth was largely a recovery from the decline a year earlier. Large South Korean imports of rice and oil kept the trade deficit from declining to a more normal level. Taiwan's 6-percent growth occurred despite sluggish demand and a decline in agricultural output. Burma and Thailand—countries whose agricultural performances are critical to their overall economic situations—matched or exceeded the real GNP growth achieved in 1980.

Following the dismal harvest of 1980, East Asian agricultural production rebounded in 1981 and advanced by 4 percent, matching the aggregate output achieved in

1979. Of the eight countries for which indices of agricultural production were calculated, seven increased and one declined. Per capita agricultural output advanced in all countries except Taiwan and Japan. Grain and oilseed harvests were up substantially in most countries, while livestock production was virtually unchanged.

The East Asian rice harvest benefited from improved weather. A record 65.7 million tons led to reduced imports and increased rice consumption. The Korean crop was not a record but was 27 percent above the weather-reduced 1980 harvest. Burma, Indonesia, and Thailand each had huge rice crops for the second consecutive year. Japan harvested a more normal outturn, but its rice diversion program kept production far below levels during the late 1970's.

Nearly 95 percent of East Asia's wheat requirements are met by imports. All countries are net wheat importers, with total 1981 imports of 11.7 million tons—slightly below a year earlier. The increased availability of rice was primarily responsible for the slow down in wheat consumption, especially in Indonesia.

Increases in coarse grain output generally paralleled those for rice. Good weather and expanded area contributed to higher corn output in Indonesia and Thailand. Coarse grain imports were up slightly to 26.9 million tons, with increased purchases by Korea and Taiwan more than offsetting the slight decline in Japanese imports.

East Asian cotton imports increased only marginally, and stocks grew during 1981, reflecting continued sluggish world demand for the products of the region's textile industries. Several countries are trying to grow more cotton, with noteworthy successes in Burma and Thailand. Cotton output is still small compared with total use, but domestic production has made significant strides in recent years and will be important in the textile expansion efforts of East Asian economies.

The livestock sectors of most countries showed signs of strength at year's end, as feed prices and the impact of the recession on meat demand in developing countries eased. Beef and veal demand showed substantial gains in both Korea and Japan, while pork demand was down in Japan but recovered somewhat in Korea. Although formula feed production was up in Korea and Taiwan, the increases were more than offset by the 4-percent decline in Japan.

Economic growth prospects for the subregion in 1982 do not differ markedly from 1981—real growth in GNP in all countries, but not at previous or desired levels. Continued slow growth in world trade will constrain economic growth. This in turn will affect consumption, especially of livestock products. Static meat demand may keep animal feeding down, but the growth in coarse grain imports is expected to approach 3 percent. The greater protectionism indicated in the renewed Multi-Fiber Agreement will hurt textile industries in Korea, Taiwan, and Hong Kong, but Indonesia, Thailand, and other countries may gain. So, cotton shipments to the region are expected to show little growth in 1982.

The region's wheat imports are expected to grow only marginally in 1982, because of slower economic growth and concern over trade deficits. The large rice surplus of

East Asia: Supply and distribution of selected agricultural commodities

Commodity/ year	Pro- duction	Imports	Exports	End stocks
1,000 tons				
Rice				
1979	58,847	3,126	4,300	12,618
1980	59,625	3,837	4,644	14,463
1981	65,668	3,806	5,035	15,551
1982 est.	65,945	1,831	4,705	14,415
Wheat				
1979	674	11,447	402	2,477
1980	792	12,036	428	2,772
1981	762	11,723	428	2,821
1982 est.	910	11,880	450	2,800
Coarse grains				
1979	12,957	25,844	2,501	4,542
1980	12,636	26,576	2,322	4,187
1981	13,946	26,906	2,901	3,813
1982 est.	13,720	27,650	2,860	3,870
Cotton ¹				
1979	475	7,385	179	2,542
1980	704	6,989	150	2,215
1981	885	9,666	152	2,555
1982 est.	940	9,900	152	2,650
Vegetable oils				
1979	6,494	984	3,947	687
1980	7,144	1,234	4,703	678
1981	7,718	1,091	4,520	721
1982 est.	8,230	1,160	4,800	730
Sugar ²				
1979	7,371	4,412	3,263	2,664
1980	6,517	3,571	3,223	1,989
1981	7,074	4,091	3,457	2,091
1982 est.	8,350	3,800	4,000	1,670

¹Cotton data in thousand 480-lb bales. ²Centrifugal white sugar.

1981 is expected to be matched in 1982, with both Burma and Thailand unable to achieve export targets. Sugar output will grow, chiefly because of a production surge in Thailand, making the subregion a net exporter for the first time in several years. Difficulties in maintaining cane farmers' incomes will pressure Asian participants in

the International Sugar Organization (ISO) to exceed export quotas. Net exports of vegetable oils may increase by 6 percent, with both Malaysia and the Philippines ready to export more. [Wayne Denney (202) 447-8229]

BURMA

Rapid Economic Growth Continues

Burma continued its remarkable economic growth in 1981, chalking up another 8-percent increase in real GDP. The agriculture sector again played a leading role with the harvest of another record rice crop and other crops that were generally good to excellent. Other positive economic developments were an inflation rate of only 4 percent and a 9- to 10-percent increase in exports.

Preliminary estimates indicate that total exports rose to \$482 million in 1981, up from \$451 million in 1980. Total imports of the principal reported commodities amounted to \$383 million, compared with \$353 million in 1980.

A Green Revolution in Rice Production

Despite late monsoon rains that dumped as much as 15 inches on some major growing areas during the main harvest month of November, Burma produced a second consecutive bumper rice crop—a record 8.5 million tons, slightly higher than the previous year.

Burma's success under the HYV program for rice, which targets inputs to rice-growing townships, is one of the most noteworthy stories in Asia in the last decade. In the 6 years of the program's implementation, Burma's rice production increased 66 percent, with the area under HYV's expanding from 6 to 49 percent and yields rising to 1.8 tons of milled rice per hectare, up from 1.1.

Other Crops Improve

The 1981/82 oilseed crop reached a record 827,000 tons, up 181,000 from the previous year. The Burmese Government is currently emphasizing oilseed crops, which have a quick payoff. Hence, they are concentrating on expanding the area planted to drought-resistant oilseeds, such as sunflowers (a new crop to Burma) and sesame. The area planted to both crops increased 26 percent in 1981/82. The peanut area also increased, but it was constrained by seed storage problems in the humid southern growing areas.

Agricultural exports, including forest products, increased 14 percent to \$429 million in 1981. The value of rice exports surpassed 1980's level by 41 percent and offset the decline in several other export items, including oilcakes, rubber, and teak. Large 1980 and 1981 crops

generated rice exports of more than 800,000 tons in 1981, up from about 620,000 the previous year. In 1981, Madagascar, Indonesia, and Sri Lanka were the major markets for Burmese rice. Stocks at the end of 1981 were a record 2 million tons.

U.S. agricultural exports (mostly blended food products) totaled only \$33,000 in 1981, down from \$87,000 in 1980. U.S. agricultural imports (mostly dried beans) were a modest \$14,000.

Prospects Bright for 1982 Rice Exports

Burma has proven it can change agricultural practices and improve yields for rice through a program of improved practices in targeted townships. In fact, the rice HYV program has been so successful that current Government plans call for an actual reduction of rice area by close to a million hectares by 1985. The HYV program will also be extended to boost oilseed, corn, wheat, and bean production.

The large surplus of rice currently available for export should translate into shipments of more than 800,000 tons in 1982, despite quality complaints, particularly from Indonesia, and large supplies in other exporting nations. A greater volume of rice exports and strong soybean and teak markets could push the value of 1982 agricultural exports to more than \$500 million. [Richard Nehring (202) 447-8106]

Burma: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	<i>1,000 tons</i>		<i>Percent</i>
Rice	8,404	8,505	55.7
Peanuts	343	439	10.4
Pulses	428	438	4.9
Sesame	110	160	6.1
Vegetables	1,050	1,050	5.6
Total			82.7

¹See explanatory notes.

Sources: Government of Burma, FAS, ERS estimates.

HONG KONG

Trade-Oriented Economy Maintains Growth

Hong Kong completed its third consecutive year of real economic growth in excess of 10 percent in 1981. Inflation remained high but steady at 15 percent, while unemployment stabilized at 4 percent. Less favorable economic developments included rising import costs,

climbing interest rates, a softening real estate market, decreasing operations in the cotton-spinning sector, and a very restrictive textile accord with the United States. These signals reflect the economy's growing vulnerability to recession in Western countries.

Total 1981 imports increased 12 percent to \$24.9 billion because of strong domestic demand. Rising import costs—partly because of the weak Hong Kong dollar—

indirectly contributed to high inflation. On the plus side, the weak Hong Kong dollar, strong electronics sales, and a higher volume of garment sales helped boost 1981 exports to \$21.9 billion. Overall, Hong Kong's 1981 trade deficit of \$3 billion—compared with \$2.6 billion in 1980—was covered by financial inflows reflecting the colony's major Asian role in banking, investments, and services.

Agricultural Imports Show Little Change

Total agricultural imports reached \$3.4 billion in 1981, down from \$3.5 billion in 1980. Cotton imports were valued at \$263 million, compared with \$340 million in 1980. Live hog and rice imports remained steady at \$235 million and \$181 million, respectively.

Total U.S. agricultural exports to Hong Kong fell 9 percent to \$394 million in 1981 because of reduced imports of U.S. cotton. The volume of U.S. cotton exports slipped to 47,000 tons, less than half the previous year's level.

Slower 1982 Growth Appears Probable

Whether the Hong Kong economy continues its remarkable growth in 1982 depends upon an early end to the recessions in Western countries. Failing that, the GDP growth rate will likely fall to 6 to 8 percent, with trade deficits of more than \$4 billion. The value of Hong Kong's total agricultural imports will likely rise to \$3.5 to 4 billion in 1982. Of the total, China is again expected to provide about one-third, the United States one-eighth, and the European Community about one-tenth. The outlook for U.S. commodities during 1982 is, however, mixed. U.S. cotton sales will likely rebound only marginally because of stagnating and restrictive world textile markets. U.S. citrus exports will likely fall sharply because of reduced supplies. By contrast, sharp increases are likely in U.S. sales of apples and other fresh fruit, as well as modest expansion in poultry and eggs, pushing U.S. exports to \$450 million in 1982. [Richard Nehring (202) 447-8106]

INDONESIA

Petroleum Exports and Agricultural Growth Set the Pace For the Economy

In 1981, Indonesia's real GNP advanced 7 percent, compared with nearly 10 percent in 1980. The effects of lower export revenues were offset by booming rice production and strong domestic investment, as economic growth exceeded the Government's targeted 6.5-percent average rate for 1979-84. Per capita GDP rose to \$532, nearly 12 percent above 1980. Inflation dropped to 7 percent because of record domestic rice supplies, moderate fiscal policies, and monetary restraints. Soft spots in the economy included textiles, light manufacturing, foreign capital inflows, and reduced volume and revenues for non-oil exports (down 35 percent from 1980).

Foreign trade is critical to Indonesia's economy and development. Of total government revenues, about 70 percent comes from corporate taxes on petroleum and liquified natural gas (LNG), mainly for export. Export revenues from petroleum and LNG increased 17 percent in 1981, despite price and demand erosion in world oil markets. In the Indonesia fiscal year ended March 31, 1982, Indonesia's current account posted a deficit of \$3.5 billion because of soaring imports and sharply lower non-oil exports. As a result, foreign exchange reserves were drawn down to \$6.1 billion entering 1982, 6.8 percent less than a year earlier.

Record Rice Crop Helps Agricultural Growth

Overall agricultural production rose 6 percent in 1981, mainly because of a sixth consecutive record rice crop. With good weather, production of most major secondary food crops also increased, so Indonesia's current food security position is excellent. Since 1979, the Government has channeled more resources toward increasing overall food production by providing subsidized production inputs and producer price supports for the secondary crops—corn, soybeans, mung beans, and peanuts.

Food crops accounted for about 63 percent of total agricultural output; perennial crops, 26 percent; livestock, 7 percent; and fisheries, 4 percent. Overall grain production increased to 26.6 million tons during 1981, 10 percent above 1980. The record rice harvest resulted from several factors: larger harvested area, increased use of fertilizer and plant-protection chemicals, the planting of disease- and pest-resistant HYV's, better growing conditions, improved irrigation capacity, and overall improved farming practices. The present favorable outlook for another large total rice harvest will mean minimal 1982 imports and could possibly even result in exports because of record-large stocks that could top 4 million tons in 1982. Rice imports declined sharply to 543,000 tons last year.

Most corn is used in local or home consumption and is important in the diet of low-income groups. With the high current support prices of \$4.20 a bushel, the potential for greater corn production is substantial if improved short-season varieties are developed and more fertilizer is used.

Indonesia: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	<i>1,000 tons</i>		<i>Percent</i>
Rice	20,163	22,288	42.1
Rubber	1,002	1,043	8.7
Cassava	13,532	14,500	8.4
Coconut (copra equivalent)	1,764	1,817	7.4
Palm oil	702	716	4.9
Sugarcane ²	17,085	17,560	7.1
Coffee	310	325	3.4
Total			82.0

¹See explanatory notes. ²Sugarcane production estimates significantly revised since publication last year.

Sources: Government of Indonesia, FAS, ERS estimates.

Imported wheat supplements supplies of rice and domestic secondary food crops. In 1981, consumption of wheat flour increased only 2 percent, compared with 8 to 10 percent in recent years. The slowing consumption rate was caused by the continued gradual reduction of the flour subsidy and abundant rice, now cheaper than wheat flour.

Increased Emphasis on Cash Crops

Though food for domestic consumption remains the Government's top agricultural priority, the need to increase non-oil export earnings given the dampened demand for petroleum has resulted in a greater focus on the traditional export crops, which in recent years have accounted for only 11 to 15 percent of the total export value. A government plan (probably much too optimistic) calls for large investments over the next decade to expand the area of rubber, oil palm, coffee, sugar, coconut, and cocoa from the current 6 million hectares to 8.2 million by 1990, and to rehabilitate about a third of the area presently under these crops. Indonesia's objectives are to increase traditional exports by making them more price competitive, to increase the value by more processing, and to improve quality to meet international standards.

Indonesia ranks second to Malaysia as a producer and exporter of rubber. Almost all of the 1 million tons produced in 1981 were exported. The export value was about \$900 million, 23 percent less than in 1980.

Coffee ranks as Indonesia's second most valuable agricultural export. In 1981, the export value was about \$400 million, 40 percent less than a year earlier. Lower International Coffee Organization export quotas and expanded production by smallholders resulted in greatly increased stocks. Therefore, the near-term outlook for Indonesian coffee is uncertain.

Palm oil steadily grows more important in Indonesia as it increasingly replaces coconut oil. For the Indonesian market, palm oil is supplied by a government allocation system and at a controlled price below world market prices. Output has increased from approximately 411,000 tons in 1975 to an estimated 716,000 in 1981 and is projected to reach 1.8 million in 1990. An abundance of competing vegetable oils for world trade and increasing domestic use resulted in palm oil exports of 240,000 tons in 1981, 47 percent less than a year earlier.

Agricultural Trade

In 1981, agricultural shipments accounted for about 14 percent of an estimated \$23.5 billion in merchandise exports. Similarly agricultural imports were 14 percent of the estimated \$12.5 billion in merchandise purchases. Most Indonesian agricultural imports continued to show steady growth—especially wheat, soybeans, and cotton, all mainly supplied by the United States. The value of U.S. agricultural exports to Indonesia was \$401 million, 3 percent below 1980. Commodity shares were: wheat and wheat flour, 32 percent; cotton, 23 percent; rice, 11 percent; and soybeans, 22 percent. Wheat, cotton, and soybeans have the greatest potential for further increases.

Europe, the United States, and Japan are major Indonesian agricultural export markets. U.S. agricultural imports from Indonesia totaled \$656 million, 15 percent below 1980. Major commodities and their share of the total were: rubber and allied gums, 61 percent; coffee, 27 percent; spices, 5 percent; and tea, 3 percent.

Somewhat Slower Growth Forecast for 1982

Indonesia's real GNP growth in 1982 could decline to about 6 percent and average less than 7 percent annually during the 1980's. The current slump in world petroleum prices will dampen Indonesian progress in 1982. During January-March 1982, oil production was cut nearly 15 percent because of the worldwide glut. To conserve petroleum for export and to provide funds to meet programmed development goals, the Government recently implemented 39-percent cutbacks in both domestic fuel subsidies and food subsidies for rice, flour, and sugar.

The Indonesian fiscal 1983 budget provides an increase of 33 percent in fertilizer subsidies, despite recommendations by the World Bank and some other advisers that the fertilizer subsidy be reduced. Such plans appear to indicate that regardless of Indonesia's overall economic performance during the 1980's, its strong commitment to rice production and agricultural development will remain intact. However, production could falter because of weather, disease, insect problems, or reduced production incentives. [Al Evans (202) 447-8229]

JAPAN

Slow Growth Continues

Japan's economy grew by only 4.1 percent in 1981, registering a slowdown for the second consecutive year. However, the economy appeared to be gradually improving by year's end because of an increase in exports, steady growth in equipment investment by major enterprises, and a modest recovery in personal consumption expenditures. Both wholesale and consumer prices appeared to stabilize, along with a general slowing of inflation. Real wages and salaries showed a small gain in 1981. On the other hand, equipment investment by small and medium-sized firms remained stagnant. Housing construction starts continued to lag, dropping to the lowest in nearly 15 years.

The value of the yen against the U.S. dollar fluctuated over a fairly broad range during 1981. A relatively weak

yen encouraged increases in Japanese exports and a slowdown in imports. An unusually large merchandise trade surplus of \$20 billion in 1981 met with harsh criticism from the United States and the European Community, who would like to increase their exports to Japan. Exports of ships, tape recorders, and general machinery continued to show high growth, while sales of automobiles and electrical appliances, previously brisk, began to slow down amid the slump in the U.S. and European economies. Crude oil imports continued on a decreasing trend.

U.S. Pushes for Japanese Trade Liberalization

U.S.-Japan bilateral meetings in 1981 focused attention on the issues of increased access for beef and citrus,

the Mediterranean fruit fly problem in California, import procedures, and standards. The United States pushed Japan to streamline import procedures and apply less stringent qualifying standards for U.S.-produced goods. In response, the Government of Japan reviewed some 99 nontariff barriers (NTB's) and decided to remedy or further study 67 of them—including better grading for U.S. sake, revised standards for plywood, and improved inspection procedures for cherries and papayas.

In bilateral meetings between government officials, the United States pressed for elimination of import quotas, including those for beef and fresh oranges. Japan agreed to start negotiations on these quotas in October 1982. Liberalization of imports of these commodities faces strong opposition from the Ministry of Agriculture, Forestry, and Fisheries and Dietmen representing agricultural constituencies. Under the Tokyo Round of Multilateral Trade Negotiations, Japan had agreed to increase its imports of beef and citrus incrementally through Japanese fiscal year 1983 (April 1983-March 1984). Currently the United States exports primarily high-quality beef to Japan and provides 97 percent of its citrus imports.

The United States has also emphasized its interest in increasing exports of grain and soybeans to Japan. There is the possibility that Japan may expand its storage of these commodities as part of a national stockpiling program initiated in 1976 and could purchase U.S. grain for use as food aid to less developed countries.

Minimal Recovery in Agricultural Output

Agricultural production in 1981 improved over 1980 but was still below normal because of typhoons, flooding, and another unusually cold, wet summer that affected yields in northern Japan. Consumption of most food products showed little or no gain. Japan imported \$18.6 billion worth of agricultural products in 1981, up 5 percent over 1980. The United States accounted for \$7.8 billion or 42 percent of the total. Imports of pork showed the most dramatic increase, reaching a record 184,000 tons.

Rice production increased 5 percent in 1981, an improvement over 1980's unusually poor crop, but still below normal levels. Cool weather and diversion efforts caused output to slip below consumption, easing Japan's surplus rice problem. Some 667,000 hectares of rice paddy were diverted to other crops in 1981—35,810 hectares above the Government's target and 14 percent more than

the paddy area diverted in 1980. Under its rice diversion program, Japan pays rice farmers to plant alternative crops such as forage crops, wheat, barley, vegetables, soybeans, and pulses. The portion of the budget committed to pay producers to grow alternative crops was increased about 12 percent to 340 billion yen for Japanese fiscal year 1981. As a further disincentive to grow rice, producers were granted only a 1/2-percent increase in the Government's purchase price in July 1981.

Japan exported 795,000 tons of rice during 1981, an increase of about 20 percent from a year earlier. Exports for 1982 are expected to be more in line with the yearly 365,000-ton average agreed upon by the United States and Japan in April 1980. Over three-fourths of the rice exported in 1981 was shipped to Korea. Japan exports rice as part of its surplus disposal program initiated in 1979 to remove 5.9 million tons of surplus over 5 years. In addition, Japan used 46,000 tons of rice for livestock feeding last year, further reducing the surplus.

Because of poor weather, wheat production increased only slightly in 1981, to 587,000 tons, despite a 17-percent increase in harvested area. Wheat imports amounted to 5.6 million, about the same as in 1980, with Canada becoming the sole supplier of durum wheat. In April 1981, wheat and rice resale prices increased 5.6 and 3.2 percent, respectively. Per capita consumption and import demand for wheat were probably slightly less than what they would have been without the price adjustments.

Motivated by high production costs and low cotton yarn prices, the Japan Spinners Association (JSA) formed a production cut back cartel in May 1981. The spinners will continue to restrain production at least through June 1982. The cartel has been successful in bringing production down to the point where high inventories of cotton goods could be reduced. A continuing influx of low-priced cotton goods from developing Asian countries, most importantly Korea, China, and Pakistan, will tend to moderate future growth in Japan's raw cotton imports. Cotton purchases during 1981 were down 3 percent from the previous year, reflecting weakened textile demand. Raw cotton imports from the United States declined 18 percent.

Japan's livestock sector showed a mixed performance in 1981. Beef and veal production was up almost 13 percent, with dairy steers and culled dairy cows accounting for 70 percent of the output. Pork production, on the other hand, was down 5 percent from 1980, mainly a

Japan: Agricultural producer prices and percent change

Commodity	Unit	1980	1981 ¹	Percent change
Rice (milled)	Yen/60 kg	18,846	20,184	7.1
Vegetables				
Index	(1975=100)	124.0	142.0	14.5
Eggs	Yen/10 kg	3,092	2,970	-3.9
Hogs	Yen/10 kg	4,147	4,335	4.5
Mandarins	Yen/10 kg	1,182	1,517	28.3
Milk	Yen/10 kg	1,005	993	-1.2
Broilers	Yen/10 kg	2,608	2,756	5.7
Beef cattle	Yen/10 kg	11,430	10,905	-4.6
Fruit and nuts				
Index	(1975=100)	118.0	129.1	9.4
Potatoes for food	Yen/10 kg	756	925	22.4
Crude tea	Yen/10 kg	15,880	12,149	-23.5

¹Preliminary.

Source@Japanese Ministry of Agriculture, Forestry, and Fisheries, *Monthly Statistics*, April 1982.

Japan: Production of selected agricultural commodities

Commodity	1980	1981	Share total production ¹
	1,000 tons		Percent
Rice	8,873	9,336	32.9
Pork	1,476	1,396	13.6
Vegetables	13,787	13,578	9.9
Eggs	1,999	1,990	8.2
Milk	6,502	6,620	7.5
Broiler	1,013	1,003	5.5
Citrus	3,593	3,250	4.5
Total			82.1

¹See explanatory notes.

Sources: Government of Japan, FAS, ERS estimates.

result of a voluntary producers' program to stabilize prices by adjusting output. Production of raw milk increased 2 percent, while poultry and egg output registered small declines. Producers appeared to be responding to declining profitability in the livestock sector, as evidenced by slowed production. Producer prices for beef, eggs, and milk fell somewhat over the year, while feed prices, an important component of producers' costs, increased.

Because of the lack of growth in domestic livestock production, imports of all major livestock products were up in 1981 (excluding dairy products and tallow). Beef imports totaled 122,400 tons, slightly above 1980, with 26,500 coming from the United States. Imports of pork jumped 70 percent, with Denmark benefiting the most from the gain. Poultry imports increased nearly 40 percent, and egg purchases continued to expand. Cattle hide and calf skin imports were up almost 5 percent, while tallow purchases fell 22 percent.

Production of formula feed declined nearly 4 percent in 1981, to an estimated 21.6 million tons, a result of decreased feed demand from Japan's depressed livestock sector. Increases in production of feed for chicks and layers were more than offset by decreases in feed for broilers, swine, and dairy and beef cattle. As a less direct result of the livestock situation, total coarse grain imports showed no growth for 1981, remaining at 18.6 million tons. Imports of sorghum declined sharply as Argentina shipped its sorghum to the Soviet Union, while corn and barley imports increased. Corn and sorghum purchases from the United States, which were 80 to 90 percent of Japanese imports in 1980, were off somewhat because South Africa and Australia increased their shares.

A reduced tobacco area pushed leaf tobacco production to a record-low 142,700 tons (farm weight) in 1981. The area is expected to be cut another 8 percent in 1982. In an effort to discourage further increases in production, the producer price of tobacco was raised only 1.4 percent in 1981, the smallest in over 20 years. Japan imported 83,000 tons of tobacco in 1981, up 28 percent from 1980, with the United States supplying 63 percent of the total.

Japan continues to have problems with surplus production of mikan (Satsuma) oranges, resulting from rapid area expansion during the 1960's and early 1970's. The industry is now implementing a production adjustment program with financial assistance from the Government. The total area planted in mikan trees decreased 5 percent in 1981, and the crop is estimated to have declined 2 percent.

The Mediterranean fruit fly infestation in California this past August appears not to have affected U.S. citrus exports to Japan. Fresh orange and lemon exports for 1981 were up 12 percent from last year. Shipments of fresh fruit were temporarily delayed, however, as a result of fumigation requirements imposed by Japan.

Slight Improvement Seen for 1982

Japan's Economic Planning Agency (EPA) has set a target for real GNP growth of 5.2 percent during Japanese fiscal year 1982. Private forecasters believe this outlook is too optimistic; Fuji Bank has forecast 4.3 percent, while the OECD expects real growth of only 3.7 percent. In any case, domestic demand rather than increased exports will be responsible for most of the anticipated growth. Slumping overseas economies, particularly in the United States and Western Europe, will result in external demand contributing somewhat less to GNP growth.

After a decline in 1980, growth in real disposable personal income has been slow to recover. If consumer demand remains sluggish, a rebound in Japan's livestock sector could be delayed. Beef production should remain unchanged or decrease slightly in 1982 as the availability of dairy animals, where the majority of beef comes from, declines. Pork production is expected to increase moderately, perhaps 2 or 3 percent. It is unclear how pork imports will be affected as domestic production picks up. The output of broilers is expected to increase next year.

Growth in formula feed production should parallel developments in the livestock sector. As the Government continues to encourage farmers to divert riceland to alternative crops, demand for imported wheat and forages will be lessened. Use of surplus rice in compound feeds will displace an equal amount of imported corn and sorghum. [Lois Caplan (202) 447-8229]

Japan: Imports of principal agricultural commodities¹

Commodity	1980		1981	
	1,000 tons		Million dollars	
Coarse grains ²	18,707	18,639	2,931	3,367
Soybeans	4,401	4,197	1,315	1,376
Raw cotton	719	700	1,340	1,366
Wheat	5,682	5,633	1,230	1,264
Sugar	2,266	1,591	1,207	727
Pork	108	184	406	708
Coffee beans	175	175	666	462
Tobacco	65	83	314	408
Beef and veal	122	122	436	397
Cattle hides	219	227	297	318
Citrus fruit	307	355	203	261
Bananas	726	708	192	223

¹Represent approximately 55 to 60 percent of total value of agricultural imports. ²Corn, sorghum, barley, oats, rye, and millet.

Source: Ministry of Finance, *Japan Exports and Imports*, December 1980 and December 1981 issues.

KOREA, REPUBLIC OF

Korean Economy Rebounds

Real growth in GNP was 7 percent in 1981, and there were no major political disturbances, in contrast to the tumult of 1979 and 1980. But economic recovery was uneven, and the memory of some of the unwanted consequences of quick growth in the 1970's and of the oil-price

shocks in 1979 and 1980 dominated government and private planning. Real GNP growth made up for the 6.2-percent decline in 1980, but two-thirds of the 1981 increase reflected agricultural activity's rebound to normal levels; at 2.5 percent, growth in the industrial and service sectors was modest.

As in 1980, export activity led industrial growth. Exports grew by nearly 22 percent, exceeding the 16 percent attained in 1980. This kept the trade deficit (\$4.8 billion) from rising, despite large rice and oil imports. The textile sector again provided the largest share of exports (23 percent). Korea's export industries achieved volume growth partly by cutting profit margins and keeping prices low to meet stiff competition from other exporting countries. The renewal of the Multi-Fiber Agreement in late 1981 included no guarantees against greater discrimination toward Korean textile exports, and the textile sector thus encountered increasing financial difficulties while facing no apparent relief in foreign protectionism.

Imports grew by 18 percent in 1981. In an effort to help exports and discourage imports, the Government allowed the won to float downward by more than 5 percent during the year—a decline that, together with the 1980 devaluations, made the won worth 12 percent less against the dollar in 1981 than in 1980. This had an inflationary impact. But the Government's tight money policy—in effect since late 1979; the easing of oil prices; high interest rates that slowed spending; and consumer spending squeezed by unemployment and relatively small wage increases all worked to bring inflation to about 12 percent (on an annual basis) by December. The average for the year was 22 percent above 1980; prices in 1980 had averaged 28 percent more than in 1979.

Grain Production Recovers

Generally good weather enabled agricultural output to recover from last year's dismal level. Although a September typhoon caused some damage, the rice harvest rebounded by almost 27 percent and approached 5.1 million tons. The acreage planted to HYV's was small. About 73 percent of the area was planted to traditional varieties, a sharp reversal from 1978, when area in traditional rices bottomed out at 25 percent. Continuing taste preferences for traditional varieties, as well as the HYV's poor resistance to cold and disease, must be overcome before Korea's farmers return to greater planting of the HYV's.

The output of winter grains (primarily barley), at 828,000 tons, was the lowest since the Korean War. Among these grains, only malting barley rose, continuing the consistent trend of recent years. Corn production dropped, ending several years of increases. For both the winter grains and corn, the chief reasons for decreasing production were declining area and the high cost of labor.

Korea, Republic of: Production of selected agricultural commodities

Commodity	1980	1981	Share of total ¹
	1,000 tons		Percent
Rice	4,000	5,063	38.3
Vegetables	7,190	7,435	26.5
Eggs	267	282	5.7
Beef	127	94	5.3
Pork	241	249	4.3
Poultry	90	98	3.3
Milk	458	482	2.4
Barley	811	711	2.2
Total			88.0

¹See explanatory notes.

Sources: Government of Republic of Korea, FAS, ERS estimates

Livestock Output Growth Remains Slow

Livestock production continued sluggish. While dairy and beef herds based on imported breeds continued to grow, and poultry and egg production responded quickly to increased demand, pork producers remained cautious.

A large amount of beef was imported to ease retail prices. Profits from the resale of imported meat went to the livestock producers' cooperative, which used the proceeds to import high-quality beef and dairy stock and feeder cattle. The culling of older dairy cows was encouraged, both to provide beef and to raise herd productivity.

Mixed feed production, at 3.5 million tons, grew marginally. Feed prices rose slowly through October; falling prices for imported feed grains were not felt directly because of the formula feed stabilization price scheme, which attempts to even out changes in world market prices over the years. Nevertheless, product prices rose quicker than input costs, allowing greater profits.

Food Situation

Despite moderating inflation during 1981, food prices jumped 29 percent, while the prices of other items rose 18 percent. Among foods, meat, vegetable, and cereal prices showed the strongest increases (42, 40, and 28 percent), while egg, fish, fruit, and milk prices rose less (23, 22, 17, and 16 percent). Rice and beef imports kept overall price rises for those commodities down, but prices for traditional rice, barley, and domestically produced beef and pork still climbed (40, 65, 40, and 66 percent).

Rice availability increased through the year, first from imports, and then from a normal fall harvest. Despite the continuing requirement that rice served in public places be mixed with barley, consumers still had a freer choice in buying rice according to their tastes than they did in the past. Apparently they chose to shift their purchases to the higher priced varieties. This may explain why total apparent consumption fell by 3 percent to 5.5 million tons.

Barley consumption stayed about the same as in 1980, propped up by the Government's continued enforcement of rice-barley mixing regulations, which rose from a 80:20 to a 70:30 combination in late 1980. Wheat flour use declined a little in 1981, perhaps because of the changed rice situation, but about 114,000 tons of wheat went to make super cereal, a whole wheat product suitable for mixing with rice.

Meat consumption, at 488,000 tons, increased slightly. Given low Korean meat consumption, this increase was surprisingly small. Tight pork and beef supplies drove prices up. When large beef imports arrived, the ratio of beef to pork prices fell. The high pork prices, together with the smaller premium on beef, thwarted a government-sponsored campaign to switch consumer purchases from beef to pork. A similar effort on behalf of poultry meat seemed to have had more success; consumption grew by 9 percent.

While milk production in 1980 outpaced consumption and pushed dry milk stocks to 7,000 tons, demand picked up in 1981. Real prices remained stable, and powdered milk was used to supplement fresh milk. Milk consumption rose 13 percent in 1980 and 18 percent in 1981, showing one of the strongest gains of any food item during Korea's economic slump and indicating a continuing shift in the diet.

Agricultural Policy and Trade

South Korea's agricultural trade has three important components—food, industrial, and feed imports. Exports are relatively small. Korea's total imports of foodstuffs—principally rice, wheat, sugar, and beef—increased sharply in 1981. The greatest factor was the 2-million-ton rice purchase, the largest in Korean history. The use of wheat as a rice substitute caused wheat imports to rise. Both increases were because of 1980's abnormal weather, not changes in demand. Beef imports, on the other hand, resulted from a policy decision to keep prices stable.

The United States did well in food exports, shipping over half of Korea's rice imports and again providing all the wheat and edible soybean imports. Total U.S. food exports were \$949 million, 22 percent higher than in 1980.

The value of Korea's agricultural imports which are used primarily for industrial purposes—cotton, rubber, hides, wool, tallow for soap, tobacco, feathers, etc.—rose about 12 percent. Cotton textile exports, unlike textile imports in general, rose little in volume and declined slightly in value in 1981. This meant that total cotton imports, at 1.5 million bales, did not rise from 1980. Decreased cotton availability from the 1980 U.S. crop and relatively high U.S. prices sent Korean importers to other suppliers more than in other years.

Korean footwear exports benefited from the United States' decision to remove import quotas. The strong surge in export volume and favorable prices for hides pushed imports of hides and skins well above 1980's purchases.

Feedstuff trade failed to grow significantly from the previous year. The United States encountered competition in the corn market, with 5 percent coming from South Africa and Thailand. Soybean imports displaced beans for crushing; two-thirds of Korea's imports came from Brazil, one-third from the United States. All sorghum shipments were of U.S. origin. The value of U.S. feedstuff exports was 7 percent higher than in 1980 and accounted for 19 percent of U.S. farm exports.

Development Plan Launched in 1982

While Korea continued to heavily subsidize agriculture in 1981—as well as imposing quotas, tariffs, and bans on many food imports—criticism of protectionism grew. The criticisms are reflected in the Five-Year Plan for National Development for 1982-86. According to the plan, the two most important subsidies—for grains and for fertilizer—are to be eliminated by 1986. Despite the plan's target for self-sufficiency in rice by 1986, the withdrawal of subsidies for grains could result in larger imports of rice. The plan and other policy statements announced the Government's intention to reduce the number and size of food tariffs, while promising strong support for growth in textile, footwear, and other industries that import agricultural fibers.

Korean crop production is expected to follow the 1981 pattern, given another year of normal weather. The decline in the area planted to most crops other than vegetables, fruits, and rice is expected to continue.

Real GNP growth of 5 to 6 percent is expected. This should allow some income-related increases in consumption. Much smaller price increases, perhaps 10 percent, may aid the consumption of some food items. Demand for meats, fruits, processed foods, and beverages may grow more quickly than in 1981. This may stimulate pork production, which would be reflected in somewhat higher feed consumption in the second half.

The growth of the whole economy, but particularly of the textile/apparel sector, will be affected by changes in importing countries' quotas and tariffs on Korean goods. In early 1982, all indications were that Korea's export growth would be limited more severely than in earlier years. The outlook for cotton imports is therefore for little or no growth in volume. However, hide purchases should continue strong.

Overall U.S. trade in agricultural products will fall to about \$1.6 billion. A strong upturn in livestock production, returning to the 1979 level, is still expected, but this seems more likely to occur in 1983 than 1982, deferring for another year the long-awaited quickening of U.S. coarse grain exports. [John Dyck (202) 447-8229]

MALAYSIA

Investment and Fiscal Policies Keep Growth Rate High

Sluggish demand in major export markets held Malaysia's 1981 real GNP growth to 7 percent, slightly below the 1980 rate. The major stimulus for economic growth was increased domestic investment and an expansionary fiscal policy. The inflation rate rose to nearly 10 percent, up from 7.6 percent in 1980, pushed by a 17-percent rise in the average price of imports. Unemployment remained virtually unchanged at 5 percent, although agricultural labor shortages continued. Skilled labor, attracted to Singapore by higher wages, is also insufficient.

The country remains reliant on exports of raw materials, imports of processed goods and manufactured products, and foreign investment capital.

Exports of goods and services totaling \$12.4 billion (54 percent of GNP) were virtually stagnant in 1981, following an 18.3-percent increase in 1980. This was largely because of price declines for rubber and tin and lower volumes of sawlogs, tin, and petroleum. Exports of crude

petroleum and manufactured products each accounted for about 24 percent of the total export value, followed by rubber, 15 percent; crude and processed palm oil, 10 percent; and sawlogs and tin, each 8 percent.

Although exports failed to register significant growth, imports increased 20 percent to \$12.5 billion because of higher prices and volumes. Deterioration in Malaysia's 1981 trade performance resulted in increased foreign borrowing and negotiated credits totaling about \$2.2 billion. Malaysia's current account deficit widened to \$2.5 billion in 1981, and the country's overall balance of payments incurred a deficit in excess of \$300 million. At the beginning of 1982, gold and foreign exchange reserves totaled \$4.2 billion, equal to about 4 to 5 months of imports.

Agricultural Production Slows Some

Agricultural output increased by about 3 percent in 1981, slightly below the previous year's rise. Malaysia is the world's leading producer and exporter of natural rubber, palm oil, and pepper. Of the total value of agri-

Malaysia: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	1,000 tons		Percent
Rubber	1,552	1,565	37.6
Palm oil	2,576	2,824	29.2
Rice	1,333	1,350	20.1
Palm kernels	557	590	3.6
Total			90.5

¹See explanatory notes.

Sources: Government of Malaysia, FAS, ERS estimates.

cultural exports, rubber accounts for about 50 percent, and palm oil about 33 percent.

Malaysian rubber production, virtually all exported, accounted for about 40 percent of the world's total output of natural rubber. Although prices gradually weakened during the year, a small production gain was made possible by increased tapping. Still expecting an increasing world shortage of natural rubber this decade, the Government has various programs aimed at raising production, including increased emphasis on rubber by land development agencies.

Malaysia's share of the world's crude palm oil production increased to 57 percent, up 10 percent from 1980. The Government projects that output will reach about 4 million tons in 1985. Although about 94 percent of Malaysian processed palm oil is exported (2.4 million tons in 1981), approximately 150,000 tons are used domestically for further processing into finished products.

Malaysia produced nearly 1.4 million tons of rice, up slightly from 1980. Increases in the rough rice subsidy and free fertilizer contributed to the higher production. Rice imports, mainly from Thailand, totaled 235,000 tons.

U.S. agricultural exports to Malaysia increased 25 percent to \$110 million during 1981. Exports of soybeans

(\$25.1 million), unmanufactured flue-cured tobacco (\$22.8 million), wheat (\$21.7 million), fruits and preparations (\$10.6 million), and vegetables and preparations (\$3 million) accounted for 76 percent of the total. U.S. agricultural imports from Malaysia totaled \$333 million, 5 percent below 1980, with rubber, palm oil, and palm kernel oil accounting for 89 percent of the total. U.S. palm oil purchases equaled 120,000 tons valued at \$59 million, and rubber imports of 169,000 tons cost \$209 million. Thus, Malaysia's agricultural trade surplus with the United States was down slightly from 1980.

Continued Strong Economic Growth Targeted

A real average growth rate of 7.6 percent annually is targeted for the Government's Fourth Malaysia Plan, which extends through March 1985. The Government's 1982 budget calls for increased public spending and introduces measures to boost investment in construction and manufacturing. These economic sectors will likely continue to record the strongest growth (10 to 15 percent) in 1982.

The agriculture and mining sectors are likely to show only modest growth in export values because commodity prices are not expected to make a strong recovery before 1983. As for rice, the magnitude of Malaysia's 1982 dry-season crop, total production, and import needs, will depend upon whether rains sufficiently replenish reservoirs in time to permit unrestricted irrigation. As of April 1982, rice output was forecast at 1.2 million tons, 9 percent below 1981. Crude palm oil production will increase about 8 percent, even though world supplies of fats and oils continue large.

In 1982, Malaysia's trade and current-account deficits will likely increase further, with the latter exceeding \$3 billion. In the longer run, the economy will be comparatively strong and attractive to foreign investment and trade. [Al Evans (202) 447-8229]

THE PHILIPPINES

Slow Export Demand Restricts Growth

The Philippine economy during 1981 was biding its time, waiting for demand from its major trading partners to stimulate export industries. Exports, one of the major sources of Philippine growth, were only 2 percent above 1980's approximate \$5.8 billion. This slowdown contrasted sharply with the 26-percent pace in 1980 and the annual average of 23 percent achieved each year since 1976. Nontraditional exports have fared relatively well compared with traditional products, increasing their share of total 1981 exports to 57 percent—not so much because of exceptional growth rates, but because traditional exports have continued to slip. Although the value of total imports climbed 9 percent to \$8.4 billion, purchases of materials destined for further processing declined in nearly every sector—a further indication of not only the deterioration of the peso versus the dollar but the general slowdown in business activity. The resulting trade balance was again askew, widening to a \$2.5 billion deficit.

As of December 31, 1981, the country's foreign exchange reserves were \$2.57 billion, down by 18 percent from 1980. In conjunction with the World Bank, the Philippines continued its economic restructuring program, cutting the tariffs placed on raw and intermediate materials. Overall tariff protection dropped from 42 to 28 percent, bringing the Philippines closer to the Association of Southeast Asian Nations' (ASEAN) average rate of 22 percent.

Farm Output Stunted; Low Prices Abroad

Growth in Philippine agricultural production slowed to 4 percent in 1981. Even still, it was a record output, despite typhoons, an 18-percent rise in fertilizer costs, and weak support prices. Rock-bottom prices for the country's major export commodity, coconuts, and a shortage of sugar for export hindered agricultural earnings.

The 1981 rice crop, at just below 5 million tons, was virtually unchanged from the 1980 harvest because of bad weather. Realizing that supplies would be tight, the

**The Philippines: Production of selected
agricultural commodities**

Commodity	1980	1981	Share of total production ¹
	1,000 tons		Percent
Rice	4,981	4,960	26.6
Copra	2,142	2,350	17.9
Sugarcane	23,483	24,200	13.5
Corn	3,247	3,350	9.8
Pork	412	432	9.0
Pineapples	901	930	3.4
Bananas	1,333	1,300	2.8
Total			83.0

¹See explanatory notes.

Sources: Government of the Philippines, FAS, ERS estimates.

Government suspended rice exports. Only minimal shipments were made.

Gains are continuing in corn production, even though self-sufficiency in yellow corn has not been attained. The new program announced in December 1981 will shift the emphasis from the adequately supplied white corn to the yellow corn needed for feed. Wheat imports rose 5 percent from 1980, reflecting the ability of the National Food Authority (NFA) to buy at low prices.

During 1981, copra production rose 8 percent above 1980, largely a result of a recovery from abnormally low rainfall in earlier years and an increase in the number of bearing trees. Coconuts provide income for 25 to 30 percent of all Philippine households, most of whom have been feeling the squeeze of the competitive vegetable oil situation since 1980. While the Philippines produces about 44 percent of the world's coconut oil, it provides 85 percent of the world's exports. With world production rising—largely because of increased Philippine output—and coconut oil's share of world vegetable oil trade declining to 8 percent in 1981, a glut occurred in the Philippines. At least six coconut oil mills were shut down, and others were working below capacity by mid-July 1981. Some coconut oil was mixed with petroleum for fuel in an attempt to expand its use.

The major issue in the industry during 1981 was the coconut export levy, which officially is to be paid by the exporters, but in reality is passed back to the producers. Although the levy dropped 34 percent to 50 pesos, the farm price of copra has fallen even further. The levy is now determined by a "sliding scale formula," which adjusts it to fluctuations in the price of coconut oil.

Growth in the livestock industry has slowed considerably during the past 2 years because of high feed costs. Production of hogs grew 5 percent to 432,000 tons; beef and veal rose 3 percent to 131,000 tons; and poultry was up 2.6 percent to 155,000 tons. The Philippines is expected to remain self-sufficient in poultry and egg production. Although the 10-year dairy program gained official status this year, the Philippines will continue to rely heavily on dairy imports through the 1980's; over half of dairy purchases are in the form of powdered milk.

The decrease in sugar production in 1981 was largely attributed to bad weather, with yields dropping 6 percent and production falling 7 percent. While domestic demand continues to grow (over 5 percent in 1981), the Philippines has tried to fill its ISA export quota; thereby earning needed foreign exchange. Exports during 1981 totaled nearly 1.3 million tons, 264,000 shy of the ISA quota.

Future Growth Tied to Changes in Farm Policy and World Demand

During 1982, the Philippines will continue to greatly depend on the international market, with domestic growth contingent on recovery in the world economy. Demand for the major traditional exports—including coconut products, sugar, copper, and wood—is not expected to improve, with nontraditional exports—garments and electronic products—remaining strong.

The outlook for growth in the farm sector appears good if the agricultural ministry's efforts in early 1982 are successful. The resolution of several important issues—the fertilizer subsidy policy, rice and corn prices, the coconut levy, and sugar wages—are basic to the sector's growth. Given the current lower world price of urea, the most widely used chemical input in the country, it may be possible for the Government to end the fertilizer subsidy without increasing prices. Renewed dedication to the country's rice and corn programs should stimulate production. Higher sugar output is anticipated in light of some increase in area and good rainfall during the growing season. The coconut industry reports that production will be down 8 to 10 percent during 1982, a result of typhoon damage and dry spells in Mindanao and some central islands. Since 70 percent of coconut product exports is coconut oil, ministerial sources feel that the industry must diversify into nonedible products, such as soap, in order to offset competitive prices for other edible vegetable oils. [Leslie Ross (202) 447-8229]

SINGAPORE

Economy Growing Rapidly

Despite a sluggish world economy in 1981, Singapore's real GDP rose nearly 10 percent, only slightly below 1980's growth. The country's per capita GNP—about \$4,835—is the highest in Southeast Asia. Furthermore, inflation declined slightly to 8.2 percent. Much of Singapore's recent economic success can be attributed to its industrial restructuring program, which is designed to maintain export competitiveness by shifting industry into more capital- and technology-intensive production.

Brisk domestic demand in 1981 contributed about 50 percent of GDP growth, up from 25 percent in previous

years. Export demand for Singapore's goods and services rose at a much slower rate than in past years—only 5 percent. All major economic sectors, with the exception of trade, expanded rapidly.

Singapore has consistently increased its foreign exchange holdings despite recurring and substantial balance-of-trade deficits. In 1981, as in previous years, these deficits were overcome mainly by attracting large foreign-capital account surpluses and by achieving consistently large service account surpluses, reflecting the importance of the wide range of technical, financial, transportation, and communication services provided.

Singapore's balance-of-payment surplus rose 35 percent to about \$900 million.

Singapore must import 80 percent of the food needed for its population of 2.4 million. It is self-sufficient only in pork, poultry, and eggs—all produced with imported feeds.

U.S. agricultural products face a highly competitive and diversified market in Singapore, basically a duty-free port without trade restrictions. Total U.S. shipments to Singapore amounted to \$184 million in 1981, up 36 percent from 1980. Leading items were barley (\$39.8 million), poultry meats (\$29.6 million), wheat (\$21.9 million), fresh fruits (\$20.3 million), vegetable oils and waxes (\$12.5 million), fresh and processed vegetables

(\$11.5 million), tobacco (\$4.2 million), and cotton (\$2.7 million). U.S. agricultural imports from Singapore (mostly transshipped) totaled \$67 million, with the major commodities being crude rubber and allied gums (\$42.1 million) and cocoa butter and beans (\$10 million).

Singapore is anticipating 8- to 10-percent real economic growth during the 1980's. The trend toward industrial upgrading will intensify to allow for greater exports of value-added products to developed country markets, especially the United States, Japan, and the European Community. Competition for U.S. products and services from European, Japanese, and other Asian exporters will continue to be keen. [Al Evans (202) 477-8229]

TAIWAN

Economy Grew at a Slower Rate

Slower growth in exports, related to the worldwide recession, and sluggish domestic demand hindered Taiwan's economic growth in 1981. Taiwan's real GNP rose about 4 percent, compared with 7 percent in 1980. High interest rates, low export growth, lower corporate profits, and the economic slowdown in many of Taiwan's major foreign markets are the principal reasons behind this. Even still, per capita incomes advanced in 1981, reaching about \$2,576 at current prices, a gain of \$307 over the previous year. The consumer price index rose by an estimated 10 percent, but wholesale prices increased by only 4 percent. Unemployment remained low, less than 2 percent. The slight downturn in GNP growth also reflects the slower growth in industrial output, which rose only 4 percent, in contrast to the previous year's 8 percent. In addition, Taiwan's agricultural production was down about 4 percent because of summer floods that caused serious damage to crops, livestock, and aquaculture.

Taiwan's total trade was about \$42 billion, with a \$1.30 billion surplus. Total exports were up 10 percent, while imports rose only 4 percent. The increase in exports is primarily attributed to Taiwan's aggressive efforts to diversify its markets in the Middle East and Africa.

Taiwan's economic prospects in 1982 will depend on its ability to shift away from labor-intensive industries, such as textiles, toward technology-intensive enterprises, such as computers. In the area of labor-intensive industries, Taiwan faces increasing competition from Southeast Asian countries that pay lower wages, and it will face even stiffer competition should China begin to assert itself in labor-intensive exports.

Agricultural Output Down Slightly

Total agricultural production declined 1 percent in 1981; crop production was down 5 percent, but livestock output rose 1 percent. The decline in crop production was attributed to the high cost of labor and fuel, lack of storage facilities, and bad weather. Taiwan had fairly big rice crops for the last 3 years, creating major storage problems. In addition, chronic rice surpluses have resulted from slowly falling per capita consumption. As a result, the Government encouraged rice farmers to shift land to other crops, such as corn, soybeans, and vegetables. However, the farmers failed to respond because of favorable guaranteed prices for rice and long-time plant-

Taiwan: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	1,000 tons		Percent
Pork	696	700	26.3
Rice	2,189	2,145	22.7
Vegetables	3,261	3,200	12.0
Poultry	210	230	11.5
Sugarcane	8,432	7,978	5.5
Eggs	140	150	5.2
Citrus	374	400	4.0
Sweet potatoes	1,055	900	1.9
Total			89.1

¹See explanatory notes.

Sources: Government of Taiwan, FAS, ERS estimates.

ing habits. Although the guaranteed price cost the Government an estimated \$30 million over the past 8 years, program supporters argue that it has provided food security and benefited farmer incomes, while the exported rice surpluses have made friends for Taiwan.

Corn area remains low and has not increased for the last 5 years, despite government subsidization of fertilizer and other inputs and a rise in the guaranteed price, from \$290 to \$342 a ton. Corn production rose from 115,000 to 130,000 tons in 1981.

Sugarcane production is estimated at 8 million tons, 6 percent less than the previous year. The major reason for the decline was a 6-percent drop in planted area. In addition, high guaranteed prices for rice and the ability to produce several harvests of rice for each harvest of sugarcane have made rice production comparatively more attractive. Some of the drop in cane production also resulted from a 4-month drought during the year.

Vegetables are the most important component in the average Taiwanese diet. Because of the drought, production fell about 2.0 percent to 3.2 million tons in 1981. To meet domestic demand, the Government imported fresh vegetables from the United States and other countries.

Agricultural Trade Deficit Widens

Taiwanese exports of major agricultural commodities showed a sharp drop in 1981, as earnings declined more than 20 percent to \$530 million. The main reason was low returns for sugar, Taiwan's major export commodity, which fell from \$228 million in 1980 to \$139 million last

year because of sharply lower world prices. Taiwan's other major commodity exports—such as asparagus, mushrooms, and pineapple—also dropped because of very stiff competition from the People's Republic of China, South Korea, and Hong Kong. Taiwan's major agricultural imports rose more than 4 percent to \$1.71 billion in 1981.

In recent years, Taiwan's agriculture has adjusted to meet changing dietary patterns. However, greater imports have been necessary, particularly soybeans and feed grains, to boost production of meat and dairy products. Because of its requirements for soybeans, corn, cotton, wheat, and other commodities, Taiwan ranks among the top 10 markets for U.S. farm products, taking more than \$1.14 billion worth in 1981, up from \$1.09 billion in 1980.

Economy May Continue Recent Growth

The prospects for Taiwan's economy in 1982 are generally bright, but the country will continue to depend

heavily on economic conditions in its major foreign markets—the United States, Western Europe, Japan, and Hong Kong. The Government is forecasting real GNP to grow between 8 and 8.5 percent. Demand for meats and poultry, wheat products, and soybean products will likely increase faster, because per capita income is expected to continue its recent growth. As a result of higher consumption, Taiwan is forecast to import around 2.5 million tons of corn, 800,000 of wheat, and about 1.5 million of soybeans. In addition, Taiwan will also import cotton, tobacco, tallow, and many other farm commodities, with the U.S. share likely to be large.

Taiwan continues to be an important trading partner of the United States—our 10th largest market for exports, 8th largest source of imports, and 7th largest partner in two-way trade. To bring about more balanced trade with the United States, Taiwan will continue to pursue its "Buy American" policy in 1982. Since early 1978, Taiwan has sent six buying missions to the United States and has negotiated contracts valued at more than \$4.5 billion. [Amjad Gill (202) 447-8229]

THAILAND

Improved Economic Growth in 1981

Despite an attempted coup and continued problems with Kampuchea, real GNP grew by about 7 percent, higher than 1980's 5.5 percent, and GNP per person increased to \$758. Growth in manufacturing (8 percent), agriculture and fisheries (5 percent), and wholesale and retail trade (9 percent) was substantial. At 12.7 percent, inflation was lower than in 1980 (19.7 percent) and was falling at year's end.

In an effort to make Thai exports more competitive, the Government devalued the baht by 9 percent in mid-1981. Changes in domestic and international interest rates encouraged funds to flow into Thailand in the second half of 1981, and international agencies pumped large loans into the economy. Therefore, the balance of payments showed a slight surplus.

The continued high trade deficit, at \$2.6 billion, disturbed policymakers and international lenders. Growth in agricultural and textile exports did not cover large oil imports at high prices. The beginning of offshore natural gas flows in 1981 came too late to significantly reduce the country's reliance on imports, but will help in 1982. The early 1982 agreement to exploit additional offshore fields and the discoveries of large fields in the north will help in the future. The Government announced its 5-year plan for 1982-86, promising reduced trade deficits and fiscal austerity, without raising the rate of growth in real GNP, which will likely be nearly 7 percent. The inflation target is 10 percent per annum. Emphases on better income distribution, growth outside Bangkok, agricultural productivity, and the orientation of manufacturing growth toward agribusiness are key components of the plan.

Good Moisture Aids Agricultural Output

Thailand's agriculture, except in the south, is adapted to a dry season from late November until mid-May and a rainy season from mid-May into November. When rains persist through the normal season, the area harvested increases, resulting in large crops even though yields

Thailand: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	<i>1,000 tons</i>		<i>Percent</i>
Rice	12,210	12,879	43.2
Cassava	17,200	14,500	20.6
Rubber	511	550	8.7
Corn	3,200	4,000	8.0
Sugarcane	12,600	18,600	5.3
Tobacco	87	87	3.6
Total			89.4

¹See explanatory notes.

Sources: Government of Thailand, FAS, ERS estimates.

show little growth. This happened in 1980 and in 1981, explaining large harvests, exportable surpluses, and high stocks.

Preseason rains in March and April 1981 allowed an early start on the corn crop, which reached a record 4 million tons. The monsoon rains began in mid-May and continued with enough strength to raise the harvested area of rice to 9.8 million hectares, a record. Substantial precipitation came from non-monsoon showers in November and December. These rains ended in time to allow the main rice crop to ripen into a record 11.2 million tons. Reservoirs had enough water to both generate extra power and assure water for the second crop (harvested May/June 1982). This brought total 1981/82 rice production to 12.9 million tons.

Cassava also benefited from good moisture, but the greatly increased production of 1980/81 (17.2 million tons) was due more to expanded planted area in 1980, when prices were high. Falling prices caused farmers to switch some area into kenaf, cotton, and corn in 1981, reducing 1981/82 cassava prospects. Heavy planting and good growth resulted in about 30 million tons of sugarcane being sent to mills in early 1982. Kenaf output increased in 1981/82. More area was planted after low production in earlier years raised prices. Flooding caused a slight drop in soybean output, to 100,000 tons. Peanut

production rose 19 percent because of area expansion. Cotton area and production increased again in 1981 as farmers switched from other crops.

Government actions to support prices and aid exports had mixed results in 1981. Efforts to raise rice and cassava prices to support levels were made in 1980/81 and 1981/82. Government agencies tried to make paddy purchases from farmers, and middlemen were urged to buy at higher farm prices in return for decreased export taxation. Export premiums and the cash equivalent of the rice reserve requirement were cut by 40 percent in 1981, and the reserve requirement was lifted entirely in May 1982. Tapioca exporters were told that their quotas depended on farmers receiving a minimum price set by the Government. The price support efforts for cassava failed, because export prices dropped and the Government was unable to enforce its policies. On the other hand, rice farmers enjoyed higher prices in 1981, perhaps partly because of government actions. The most important implication of these actions was that the interests of producers were no longer subordinated to those of consumers.

Statistics on livestock and products are unreliable, but pork production increased from 295,000 tons in 1980 to 310,000 in 1981, because price controls on swine and pork were lifted. Poultry meat output grew by 10,000 tons, to perhaps 400,000. Part of this went for exports, which grew to 23,000 tons, up 5,000 from 1980. Beef production stagnated despite higher prices. Egg production grew. Dairy cattle increased, and the Government undertook schemes to raise the number and quality of the animals. Nevertheless, there was a record \$50 million trade deficit in dairy.

Thai agricultural exports set volume records but were affected by the drop in world prices in 1981. Thailand, again the world's largest rice exporter, shipped a record 3.05 million tons. The country will likely export 3 million tons of corn in 1981/82, up from 2.1 million a year earlier. Cassava exports climbed, causing sharply falling prices and complaints from European corn growers about com-

petition as markets in Europe were glutted with pellets and competing feed ingredients. Exports of about 5.6 million tons to the European Community in 1981 exceeded those allowed in an agreement between the Government and the Community in 1980 (which the Thai Government never ratified). Thailand faced a threat of increased Community tariffs on pellets until a new agreement in April 1982 assured 5 million tons in Community imports at unchanged tariff levels in 1982.

Rubber exports declined in volume and even more in value because of the depressed world market. Sugar exports, freed from the Government's controls placed in 1980, soared in volume, but price declines severely hurt the export value. The value of textile exports grew by 16 percent in 1981. Growing cotton needs were met by increased domestic production; cotton imports grew by only 3,000 tons.

Wheat imports, still supplied mostly by the United States, grew by 20,000 tons (to 230,000). Imports of 260,000 tons are expected in 1982. The tobacco trade continued large, with exports of 41,000 tons and imports of 12,000 (over 90 percent from the United States).

Outlook Uncertain

As usual, 1982 production will depend mostly on the rains. The cassava area may decrease further, and more kenaf may replace cassava because kenaf has new use as paper pulp in the northeast. Nevertheless, the harvest of large earlier plantings of cassava could cause pellet exports to move above the 5 million tons that policymakers in the European Community are willing to allow.

The rice export availability is high, with stocks of 2 million tons expected at the end of 1981/82. Exports could easily reach the Government's 3.3-million-ton target if foreign demand can be found. Good corn prices at planting time have supported area expansion. Sugar production is so large that Thailand will be seriously constrained by its 1.2-million-ton ISO export quota. [John Dyck (202) 447-8229]

SOUTH ASIA

Most South Asian economies experienced moderate, though above trend, real growth during 1981. In India and Pakistan, South Asia's largest economies, growth was led by substantial increases in industrial output, as well as gains in the farm sector. Growth in Sri Lanka and Nepal was confined primarily to their dominant farm sectors. The economy of Bangladesh, however, showed no real growth in 1981 because of drought and political and financial problems. Available information suggests that Afghanistan also experienced little growth for the second consecutive year following the turmoil created by Soviet intervention.

Inflation in consumer prices worsened in Pakistan, Bangladesh, Sri Lanka, and Nepal, but eased marginally in India. Higher real prices for food were a relatively new phenomenon in South Asia in 1981. Growth in real incomes, higher input costs, increases in government-administered prices of cereals, and, in Pakistan and India, strong gains in industrial output caused the higher food prices.

Substantial merchandise trade deficits and deteriorating balance-of-payments positions remained problems

throughout South Asia. National efforts to solve these problems were hampered by sluggish world demand and limited scope for either export diversification or the reduction of critical energy-based and capital goods imports. Bangladesh faced the most severe balance-of-payments problem in the subregion. India secured a record-large International Monetary Fund (IMF) loan in 1981 to help finance its huge trade deficits during the next 3 years. Slow growth in the real value of aid disbursements emerged as a threat to development investment in a number of South Asian countries, with most trying to adjust by finding new sources of investment capital.

The total value of agricultural production in South Asia advanced by 6 percent in 1981, compared with 2 percent in 1980 and an average annual growth rate of 2.7 percent during 1972-81. Above-trend growth was led by the recovery of spring harvests in India and by more widespread gains in Pakistan, Nepal, and Sri Lanka. Production dropped in drought-plagued Bangladesh and in Afghanistan.

South Asia: Supply and distribution of selected agricultural commodities

Commodity year	Pro-duction	Imports	Exports	End stocks
1,000 tons				
Rice				
1979	61,342	904	1,465	11,668
1980	72,373	585	1,546	7,662
1981	74,432	307	2,250	7,799
1982 est.	75,183	454	1,645	6,953
Wheat				
1979	48,608	2,974	481	7,862
1980	46,098	2,825	529	5,729
1981	51,634	3,659	0	6,489
1982 est.	52,600	4,150	100	7,800
Coarse grains				
1979	31,170	36	44	2,800
1980	31,992	30	15	1,650
1981	3,006	30	335	1,600
1982 est.	33,370	30	5	1,750
Cotton ¹				
1979	9,615	241	1,693	2,904
1980	9,505	248	2,159	2,034
1981	9,916	276	1,858	2,115
1982 est.	10,100	250	1,730	1,760
Vegetable oils				
1979	3,294	1,625	3	98
1980	3,023	1,940	0	86
1981	3,258	1,770	0	90
1982 est.	3,620	1,820	0	95
Sugar ²				
1979	4,930	356	534	2,342
1980	6,549	521	68	798
1981	8,889	548	60	1,218
1982 est.	8,500	345	530	2,260

¹Cotton data in thousand 480-lb bales. ²Centrifugal white sugar.

Both production and consumption of cereals remained stable or increased throughout South Asia in 1981, but continued low stocks and a reduced capacity to import food commercially left the area's food security fragile at year's end. Rice production reached an all time high when record or near-record production in India, Nepal, Sri Lanka, and Pakistan offset the effects of poor monsoon rainfall in Bangladesh. Record rice production was complemented by record spring wheat harvests in India, Pakistan, Bangladesh, and Nepal. While all other countries reduced cereal imports, Bangladesh's larger rice purchases and India's 2 million tons of imported wheat resulted in an increase in cereal imports during 1981. Rice exports rose from 1.6 million tons in 1980 to 2.3 million in 1981, largely on the strength of record Indian exports.

Substantial gains in pulse and oilseed production were bright spots in most South Asian countries in 1981. The gains stemmed primarily from better weather, although high pulse and oilseed prices probably played a role in stimulating larger plantings. Per capita availabilities of pulses, an important protein source, continued to be below the levels of the early 1970's.

Improved oilseed production held South Asian edible oil imports to about 1.9 million tons in 1981, the same as in 1980. India, the world's largest importer, maintained purchases at nearly 1.4 million tons, and Pakistan imported about 410,000. The U.S. share of South Asian edible oil imports, primarily soybean oil, dropped sharply

because of competition from Brazilian soybean oil on the Indian market.

Cotton production in South Asia, principally in Pakistan and India, continued its steady growth in 1981, largely on the basis of better cultivation practices and higher yields. Poor world demand for textiles led to a drop in mill consumption and cotton prices through most of the year. Record Pakistani exports of 1.65 million bales were offset by smaller Indian shipments, causing a decline in South Asia's total cotton exports.

Sugar production increased sharply in 1981 as higher producer prices and better weather stimulated a recovery in India—South Asia's largest producer. Nevertheless, sugar imports by India, a traditional exporter, converted South Asia to an uncharacteristic net import position in 1980 and 1981.

Assuming a normal monsoon, 1982 should be another year of strong growth in India and Pakistan, although 1981's record farm output will likely dictate smaller gains in 1982. A favorable monsoon should also provide the impetus for economic recovery in Bangladesh and continued moderate growth in Nepal. In Sri Lanka, a severe drought in late 1981 and early 1982 will probably retard farm production and economic growth.

There will likely be continued pressure on consumer prices, particularly those for cereals and other foods, stemming from sustained growth in consumer demand, the high cost of energy-based inputs, and further increases in government-administered prices. While the trade deficit and balance-of-payments problems faced by all countries in South Asia defy short-term solution, all countries will try to expand exports and minimize imports. They will also continue efforts to secure adequate investment capital from various sources.

Current estimates call for another record South Asian wheat harvest in spring 1982, but this outcome is dependent on the extent of preharvest losses caused by heavy unseasonal rains in India and Pakistan. Poor cereal harvests in Bangladesh and Sri Lanka in fall 1981 and spring 1982, coupled with low stocks, will likely spur increased wheat and rice imports by those countries this year. South Asian wheat imports are expected to grow to over 4 million tons because of reportedly serious post-harvest losses stemming from unseasonal rains in India and Pakistan. Larger projected rice imports in Bangladesh and Sri Lanka and smaller exports by Pakistan and India are expected to reduce South Asia's net rice exports to about 1.2 million tons.

Continued gains in pulse and oilseed production are expected in the region during 1982, but substantial shortages of domestically produced pulses and edible oils will persist. Edible oil imports are projected at 1.8 million tons, marginally below the 1981, because of smaller anticipated imports by India. U.S. soybean oil shipments to South Asia will continue to depend primarily on the competitiveness of U.S. prices.

For South Asia, slumping world cotton prices are expected to lead to slower production growth and reduced imports and exports. On the other hand, lower cotton prices, coupled with increased domestic demand for textiles will likely boost domestic cotton consumption and reduce stocks. The rebound in Indian sugar production in late 1981 and that country's expected return to its traditional role of sugar exporter should make South Asia a net exporter of this commodity in 1982 [Rip Landes (202) 447-8860]

BANGLADESH

Monsoon Failure Unsettles Economy

Monsoon failure, several financial crises, poor performance in the industrial sector, and stagnating jute exports halted growth in Bangladesh's real GDP during fiscal 1982 (July 1981-June 1982). By contrast, GDP increased at a 5-percent annual rate during fiscal 1976-1981 and 7 percent in fiscal 1981. During fiscal 1982 Bangladesh lost a major credit line for several months when the IMF suspended its loan on the grounds the Government had exceeded private and public sector credit limits. Further, the international climate for aid to poor nations substantially worsened, causing a leveling off or decline in new aid commitments. Bangladesh depends on such aid for essential imports.

Because of the monsoon failure, Bangladesh suffered a politically destabilizing increase in rice prices. Average retail prices for coarse rice in November 1981 were \$268 a ton, up 16 percent over July 1981. Beginning in late January 1982, however, prices swung sharply upward, reaching \$352 a ton in early February. In all, rice prices increased 51 percent in the first 8 months of fiscal 1982. To reduce the devastating effects of such swings, the Government has in the past a) encouraged increased irrigation and fertilizer inputs to boost winter food grain production and b) regulated ration distributions to even out the swings.

Increased irrigation inputs this year will likely result in a 1982 winter food grain harvest of 3.8 million tons, equaling last year's record. However, Bangladesh's food grain stocks in early 1982, at less than 1 million tons, were insufficient to halt increases in the price of rice.

Bangladesh's export earnings will decrease 7 percent to \$670 million in fiscal 1982 because of a sharp decline in world jute prices. Unsold jute stocks are expected to be close to 615,000 tons at the end of the year, almost matching 1982 sales. Imports, by contrast, are expected to remain virtually unchanged in fiscal 1982—\$2.45 billion. The decrease in exports, continued high imports, and the IMF cessation of credit had a crushing effect on foreign exchange reserves. Reserves dropped from \$240 million in July 1981 to less than \$100 million in early 1982.

To alleviate the financial hardships, the Government took several steps recommended by the IMF. It devalued the taka by about 15 percent in October 1981 and suspended import licenses for August-November on all commodities except food and fertilizer. However, it also accumulated short-term bank debts of \$200 million. Approval of an IMF compensatory loan of about \$75 million and \$50 million in Saudi credit in early 1981 only provided temporary relief.

The accumulation of disastrous financial events and skyrocketing rice prices brought down the civilian Government of Abdus Sattar in late March 1982, and it was replaced by a military administration.

Agricultural Output Declines

Food grain production declined by 5 percent in 1981/82. Rice production, estimated at 13.4 million tons, was down more than 6 percent from the previous year. The 1981 summer rice crop alone was down 600,000 tons because of an early end to the monsoon. Low soil moisture and reduced fertilizer availability in late 1981 also decreased the winter wheat area by a third. Current estimates sug-

Bangladesh: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	<i>1,000 tons</i>		<i>Percent</i>
Rice	14,300	13,400	68.4
Wheat	823	1,092	3.2
Jute	816	800	5.2
Sugarcane	6,676	7,000	3.1
Tea	40	38	1.8
Total			81.7

¹See explanatory notes.

Sources: Government of Bangladesh, FAS, ERS estimates.

gest the 1982 wheat crop will be about 900,000 tons, down 18 percent from 1981.

The area planted to jute declined below last year's depressed level of 587,000 hectares, because spring prices were unattractive relative to those for rice. Jute production is estimated at about 700,000 tons in 1981/82, compared with 910,000 the previous year and a record 1.2 million during 1979/80.

Trade Balance and Food Stocks Deteriorate

Bangladesh depends heavily on jute and worker remittances for foreign exchange. Of total projected exports of \$670 million in fiscal 1982, jute and jute products will represent an estimated 75 percent. Tea, leather, fish, and shrimp are other major export items. Worker remittances will likely reach \$410 million, up 12 percent over the previous year.

Food grain imports of \$240 million will again account for about 10 percent of total imports. Concessional food grain imports will continue to dominate, with the total quantity reaching 1.4 million tons.

Government food grain stocks stood at a comfortable 1.2 million tons on July 1, 1981. However, because of the reduced 1981 harvest and only moderately increased imports, ending stocks in June 1982 amounted to only 775,000 tons.

Cotton imports will reach 45,500 tons, with about 50 percent from the United States. Pakistan and the USSR are the other major suppliers.

U.S. agricultural exports to Bangladesh, mostly wheat, cotton, and soybean oil, amounted to \$68 million in 1981, down \$153 million from 1980, because of reduced U.S. wheat sales. U.S. agricultural imports, mostly frog legs and raw jute, amounted to \$5.5 million in 1981, compared with \$2.9 million in 1980. In March 1982, the United States signed a \$55 million P.L. 480 agreement with Bangladesh. The agreement provides for the sale of about 175,000 tons of wheat, 23,000 of rice, 30,000 of vegetable oil, and 23,000 of cotton, most of which should arrive in Bangladesh in fiscal 1982. Additional emergency advances of up to 150,000 tons of wheat are likely.

Stronger Growth in 1982 Appears Unlikely

Economic prospects for the remainder of 1982 are not bright. Restoration of the IMF Extended Fund Facility

would help substantially, but aid from all donor sources will likely remain inadequate to enable substantial stock rebuilding or significant dietary improvement. Further, the drastic curtailment of imports in late 1981 will undoubtedly stunt future growth prospects.

Budget expenditures on agricultural development will likely be curtailed as Government import priorities may shift to the raw materials and spare parts needed simply to maintain industry and urban employment, much less provide an impetus for long-term growth. Also, the long-term downward trend in the real price of rice—a 20-percent drop from mid-1977 to the end of 1981—is undoubtedly decreasing producer incentives. This decline in real prices also places an increasing burden on the Government's budget for stabilizing prices. Hence, con-

tinued rapid growth in food grain production may be in jeopardy.

The one bright spot is the expected large winter harvest of food grains. With a normal 1982 monsoon, Bangladesh's food grain outturn could again put it back on the track towards food self-sufficiency. Current modifications of the Second 5-Year Plan for 1981-85 reduced the 1985 food grain production target to 17.5 million tons, from the original 20 million. Nevertheless, the lower target would still permit food grain self-sufficiency but would not allow the dietary improvement originally envisioned. Imports will likely be required in poor monsoon crop years. [Richard Nehring (202) 447-8106]

INDIA

Strong Industrial Growth and IMF Loan Boost Economy

The Indian economy, driven by a sharp 8-percent increase in industrial output and sustained growth in agricultural production, achieved real growth of about 4.5 percent during 1981/82 (April-March). Industrial growth was widespread and stemmed from substantial improvements in coal and power production, an easing of transport bottlenecks, and relatively stable prices for energy-based inputs. The farm sector contributed a record production year, but growth was less dramatic because of the high production achieved in 1980/81 and an erratic 1981 monsoon.

The general inflationary pressures that plagued the economy during 1979 and 1980 eased during the latter half of 1981. However, rising prices for a number of key items, including many food commodities, continued to be troublesome. Wholesale food prices, led by rising prices for cereals, vegetables, fruits, and livestock products, averaged nearly 15 percent higher in 1981. Tight cereal supplies, higher prices for publicly distributed foods, and strong growth in demand, particularly from the industrial sector, contributed to the pressure on food prices. Because of rising food costs, consumer prices averaged about 14 percent higher in 1981, only a marginal decline from the 15-percent increase in 1980.

India's balance-of-payments position continued to be pressured by a large merchandise trade deficit and insufficient growth in invisible receipts during 1981/82. Foreign exchange reserves plunged nearly \$2 billion during the year ending December 1981, despite a small decline in 1980/81's record \$7.4 billion trade deficit and the withdrawal of over \$700 million from an IMF extended fund facility. The IMF facility, which provides loans totaling 5 billion Special Drawing Rights, was negotiated in 1981 to help finance trade deficits during the next 3 years while the Government attempts to close the gap through import substitution and expanded exports. The weak balance-of-payments position, coupled with slow growth in aid disbursements, led to a marked increase in the Government's commercial borrowing in international markets and a more liberal policy towards private foreign investment.

Tight Cereal Supplies and Wheat Imports Despite Record Farm Output in 1981

The total value of Indian agricultural production increased over 7 percent during 1981, hitting a record. Production gains occurred primarily in rabi (spring) harvests, which rebounded from drought-affected 1980 levels. The erratic performance and early withdrawal of the 1981 monsoon prevented significant gains in kharif (fall) harvests. Rising production in the farm sector reflected increased supplies—although higher prices—of fuel, fertilizer, and power and continued growth in irrigated area, fertilizer use, and HYV area.

Despite the harvest of a record 36.5 million tons of wheat in 1981, high open-market prices hindered government procurement, prevented substantial rebuilding of wheat stocks, and prompted the Government to import wheat for the first time since 1977. A total of 2.33 million tons of wheat, including 1.58 million from the United States and 750,000 from Australia, were imported during 1981/82. The imports allowed the Government to maintain a high rate of public distribution of cereals, to slow the rise in open-market prices, and to rebuild wheat stocks from 3.1 million tons in March 1981 to about 4.5 million a year later. Government-held wheat stocks, which had declined steadily since 1977/78 (April-March) because withdrawals for public distribution and exports consistently exceeded domestic procurement, remain substantially below the targeted 9 to 11 million tons (figure 1).

Erratic rainfall and the early withdrawal of the 1981 monsoon damaged the 1981 rice crop. While the crop is now estimated at a record 54 million tons, production will show little gain from the 1980 level. Stiff levies on rice millers are expected to yield a record procurement of about 7.0 million tons, but government stocks, which stood at 4.2 million in October 1981, may continue to decline and remain substantially below the targeted 5 to 6 million tons. Government rice stocks have declined since 1979/80 because of stepped-up public distribution and expanding rice exports (figure 2). This may become a factor in future decisions on wheat imports. Indian rice exports rose to about 940,000 tons in 1981—

India: Area and production of principal crops, 1979-1981

Commodity	Area			Production			1981
	1979	1980	1981 ¹	1979	1980	1981 ¹	Share of total production ²
	1,000 hectares			1,000 tons			Percent
Rice	39,414	39,773	40,300	42,330	54,231	54,000	28.7
Wheat	22,641	22,172	22,104	35,503	31,830	36,460	14.6
Coarse grains	41,419	41,230	41,671	27,487	29,242	29,242	9.0
Cereals	103,474	103,175	104,075	105,320	113,454	119,702	52.3
Pulses	23,657	22,259	22,634	12,183	8,572	11,165	4.7
Food grains	127,131	125,434	126,709	117,503	122,026	130,867	57.0
Peanuts	7,165	6,905	7,250	5,768	5,020	6,200	4.0
Rapeseed	3,544	3,471	4,063	1,860	1,428	2,247	1.7
Cottonseed	8,078	8,300	8,300	2,643	2,700	2,750	1.1
Sesameseed	2,377	2,443	2,450	348	437	500	.5
Soybeans	400	500	500	350	450	500	NA
Sunflower	61	112	115	32	66	70	NA
Other ³	4,913	4,459	4,617	1,465	1,257	1,461	NA
Oilseeds	26,538	26,190	27,295	12,466	11,358	13,728	NA
Sugarcane	2,610	2,648	3,000	128,833	150,522	178,000	6.1
Cotton	8,078	8,300	8,300	1,309	1,334	1,360	3.4

¹Estimated. ²See explanatory notes. ³Includes flaxseed, castorseed, safflower, copra, and nigerseed.

Sources: Government of India, FAS, ERS estimates.

including about 636,000 tons bartered to the USSR in exchange for petroleum.

Rabi harvests of pulses and barley in 1981 rebounded from drought-affected 1980 levels, but kharif harvests of corn, millet, and sorghum are estimated to have increased only marginally because of erratic rainfall. Despite production gains, the long-term decline in per capita availabilities of coarse grains and pulses persisted, placing continued pressure on wheat and rice supplies. Because pulses are an important protein source in the Indian diet and are in limited supply in world markets, the Government has mounted a campaign to increase production over the next 5 years. The Government also maintains a liberal import policy for pulses, with about 60,000 tons, including about 11,000 of U.S. origin, imported in 1981.

Oilseed Production Up, But Edible

Oil Imports Remain High

Production of most Indian oilseeds increased in 1981. Larger plantings, particularly of rapeseed and peanuts, in response to high prices and good weather were responsible for the gains. Indian exports of hand-picked and selected (HPS) peanuts rose to 71,000 tons in 1980/81 (October-September), the largest since 1976/77, primarily because of low supplies in the United States. The major Indian markets for HPS peanuts were the USSR (about 30,000 tons) and the United States (24,795). Increased world supplies are expected to reduce 1981/82 HPS peanut exports to about 35,000 tons, which will go mostly to the USSR.

Vegetable oil production expanded nearly 10 percent in 1981, to about 2.8 million tons, on the strength of higher oilseed production. However, despite production gains, continued upward pressure on domestic prices forced India to continue as the world's largest importer of edible oils in 1981. Imports totaled about 1.36 million tons, virtually unchanged from the 1980 record. Soybean, palm, and rapeseed oil continued as the main Indian imports. Soybean oil imports remained high at about 652,800 tons, but the U.S. share of the Indian market

Exports of selected vegetable oils to India, 1979-1980

Commodity	1979	1980	1981 ²
1,000 tons			
Soybean oil			
Brazil	240.2	250.3	561.1
Netherlands	56.2	21.1	0
United States	225.2	336.4	91.7
Other	33.3	32.2	0
Total	554.9	661.9	652.8
Palm oil:			
Indonesia	13.0	38.8	16.8
Malaysia	282.7	397.9	410.1
Singapore	100.4	118.6	43.2
Total	396.1	555.3	470.1
Rapeseed oil			
Canada ¹	76.3	120.5	91.2
Dutch warehouses	33.3	0	3.4
France	8.9	3.9	17.4
Other	30.6	1.3	0
Total	149.1	125.7	112.0

¹Includes seed as oil. ²Estimated.

Sources: Partner-country trade data, FAS, ERS estimates.

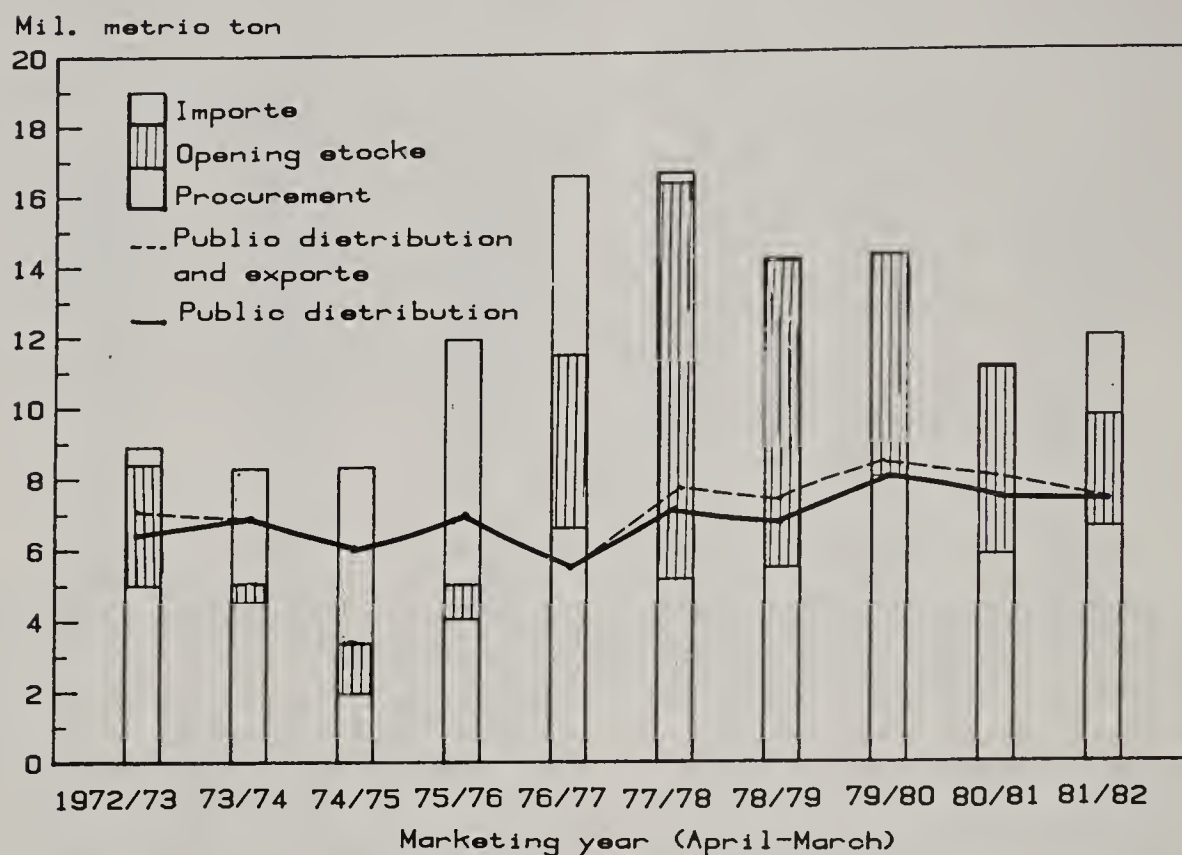
plummeted to only 14 percent as lower priced Brazilian oil predominated.

Sugar and Cotton Availabilities

Rise

In response to strong producer prices and good weather, Indian sugarcane production increased 18 percent in 1981. Production of centrifugal mill sugar is expected to jump 36 percent to about 7.5 million tons during the 1981/82 crushing season (October-September), because the relatively attractive price offered by mills increased the share of the crop they crushed. The sharp rebound in production will allow India, a traditional sugar exporter, to resume exports in 1981/82, following 2 years of tight supplies and imports. Indian sugar imports totaled 191,700 tons in 1979/80 and 228,500 (including about 65,000 of U.S. ori-

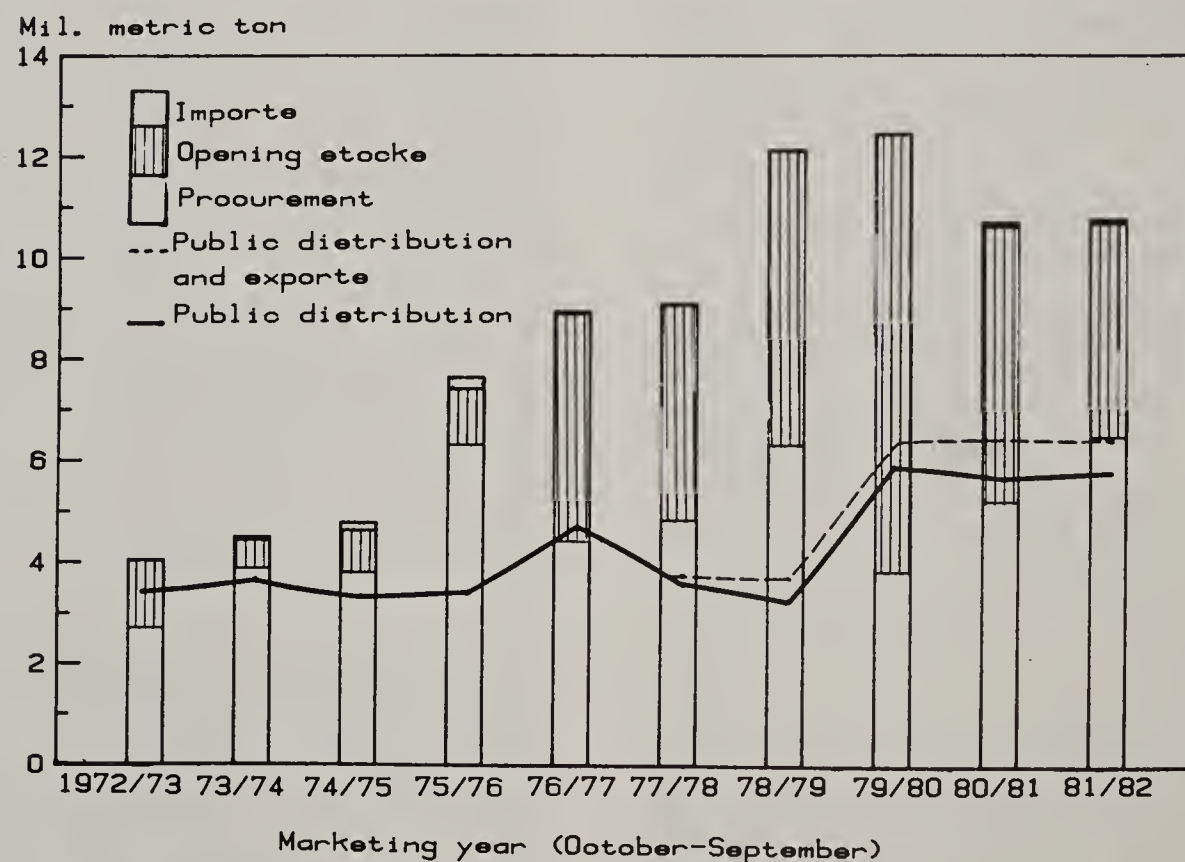
Figure 1. India: Supply and distribution of government-owned wheat: 1972/73-1981/82



Notes: Public distribution includes food-for-work allocations; 1981/82 data are estimated.

Sources: Government of India, ERS estimates.

Figure 2. India: Supply and distribution of government-owned rice: 1972/73-1981/82



Notes: Public distribution includes food-for-work allocations; 1981/82 data are estimated.

Sources: Government of India, ERS estimates.

gin) in 1980/81. Imports will cease in 1981/82, and exports are projected at 532,000 tons. The Government is expected to divert at least 500,000 tons to a buffer stock designed to stabilize sugar supplies and prices.

Cotton prices eased during late 1981 because of a 2-percent increase in production and slackening mill consumption. India has become a consistent exporter of long staple cotton, with 1980/81 (August-July) exports of 544,000 bales (480 lbs each). But, exports are expected to drop to about 156,000 bales in 1981/82. Short staple cottons are in relatively tight domestic supply, and about 39,000 bales have been imported from Pakistan so far in 1981/82.

Exports of cotton and rice, combined with higher earnings from shipments of coffee, tobacco, and tea, allowed India to maintain a positive balance of agricultural trade in 1981, despite wheat imports. The value of farm exports totaled about \$2.5 billion, while the cost of imports, principally edible oils, wheat, and sugar, was about \$1.9 billion.

Sustained Growth and Tight Cereal Supplies Forecast for 1982

Barring a monsoon failure, 1982/83 should be a year of continued strong growth for the Indian economy. A "20 Point Program" announced by Prime Minister Gandhi in January 1981 calls for continued efforts to alleviate the infrastructural constraints on increased agricultural and industrial production. Emphasis will also be placed on expanding the public distribution system to provide a wider variety of commodities to more people. The pressures of growing demand, continued tight cereal supplies, and high energy costs will likely maintain inflationary pressures in the economy. Petroleum, fertilizer, and edible oil imports will continue to put pressure on India's balance of payments. Efforts to expand exports of industrial and agricultural products will continue. Withdrawals from the new IMF facility will assist in financing the import bill and development programs. Slow growth in aid disbursements will likely lead to a further expansion of commer-

cial borrowing and more liberal policies towards private foreign investment.

India's cereal supply situation is expected to remain tight in 1982, with the need for additional wheat imports dependent on the level of procurement, public distribution, and stock rebuilding goals. The 1982 wheat crop is estimated at a record 37.5 million tons, but heavy unseasonal rains during April-May have reportedly caused substantial post-harvest damage. The Government has boosted its procurement by easing quality and moisture standards, but a large portion of domestically procured wheat is expected to have a limited storage life. A record-matching procurement of 8 million tons would appear necessary to operate the growing public distribution system without further erosion of government stocks. Either a poor procurement or progress towards a cereal buffer stock of 12 to 15 million tons will likely require additional wheat imports. Self-sufficiency is still a firm and nearly realized objective, but last year the Government showed that it will import wheat to assure adequate supplies and reasonable prices, and to protect the country's food security position. The successful 1981/82 rice procurement campaign is expected to allow the continuation of rice exports in 1982, but the need to conserve dwindling stocks is expected to reduce shipments to about 550,000 tons.

The Government will continue efforts to expand pulse and oilseed production in 1982. The improved 1981 peanut harvest and the expected record 1982 rapeseed outturn will boost vegetable oil production to about 3.2 million tons in 1982. The combination of higher domestic production and the 150-percent import duty on privately traded oils will probably limit edible oil imports to 1.1 to 1.2 million tons—all purchased by the government-run State Trading Corporation (STC). Soybean oil purchases are expected to slip to 550,000 tons. The STC typically buys the cheapest edible oils available on the market, and it is expected to rely entirely on spot purchases, as opposed to long-term delivery contracts, in 1982. Hence, a rebound in U.S. soybean oil shipments to India will hinge on price competitiveness. [Rip Landes (202) 447-8860]

NEPAL

Weak Industrial Growth Hinders Economic Gains

Nepal's economy continued to grow in 1981, with real GDP advancing about 5 percent. However, industrial production—mainly jute, cement, and sugar processing—was generally weak. Nepal's trade deficit continued to grow, as imports expanded by almost 30 percent while exports increased about 21 percent.

Agricultural Production Advances Slightly

Nepal's total agricultural production rose nearly 3 percent in 1981, because the country benefited from above-average rainfall. Total food grain production was up slightly to about 3.9 million tons, while cash crops also increased somewhat.

Rice is a staple food and the major export commodity. It accounts for about 70 percent of total cereal output and in 1981 rose about 1 percent to 1.7 million tons.

Corn, the second major crop, which accounts for about 20 percent of total food grain production, was up 8 percent to 476,000 tons. The wheat output rose 17 percent. Production of cash crops—sugarcane, jute, oilseeds, tobacco, and potatoes—rose about 1 percent.

Nepal's total exports rose about 21 percent to \$116 million, with increases mainly in jute goods, handicraft items, and leather. Total imports climbed 28 percent, reflecting Nepal's growing development needs and strong demand for food grains and edible oils because of last

Nepal: Production of selected agricultural commodities

Commodity	1979	1980	1981
1,000 tons			
Wheat	400	300	350
Rice	1,372	1,640	1,660
Coarse grains	952	920	928

Sources: Government of Nepal, FAS, ERS estimates.

year's drought-reduced harvests. U.S. agricultural exports to Nepal were more than \$3 million in 1981, while U.S. imports were only \$275,000.

Economy Expected To Show Gains

The outlook for 1982/83 agricultural production is good. Heavy rains that caused flooding in some areas should result in higher-than-average yields, assuming

subsequent good weather and timely rains. The winter harvest of wheat, pulses, grain, sugarcane, and mustard could increase in 1982.

Nepal's trade gap may widen further in the coming years because of limited prospects for increased export earnings, growing development needs, and petroleum import requirements. Nevertheless, Nepal expects 1982 to be another booming year for tourism and worker remittances. [Amjad Gill (202) 447-8229]

PAKISTAN

Six-Percent Growth Continues

Pakistan's economy showed impressive progress as higher agricultural output and continued industrial expansion combined to produce real GDP growth of nearly 6 percent in 1981. This was the fourth consecutive year of growth at this level and was achieved despite the demands imposed by regional tensions and a sustained inflow of Afghan refugees. Industrial output rose by 9 percent, despite stagnation in some segments of the textile industry. The Government's objective for industrial expansion continues to stimulate private investment and better management of public-sector enterprises. Despite the Government's effort to slow monetary growth, Pakistan continued to be troubled by rising prices. In 1981, consumer prices rose 15 to 20 percent, while wholesale prices climbed 20 to 25 percent. The rising cost of imports and higher worker remittances accounted for much of the inflation. The country's balance-of-payments position was better than expected, with exports rising faster than imports in both volume and value terms, despite the introduction of import liberalization in December 1980.

Steady Growth in the Agricultural Sector

Agricultural production, which accounts for nearly one-third of Pakistan's GDP, increased by 7 percent in 1981—a result of a fourth consecutive year of good crops. Most of the growth stemmed from higher production of wheat and sugarcane. Pakistani farmers also continued to expand and diversify their output of minor crops, especially fruits and vegetables. Pakistan remains one of Asia's few net food exporters, even though oilseed production has lagged far behind the surging domestic demand for edible oil.

Pakistan: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	1,000 tons		Percent
Wheat	10,805	11,400	38.5
Rice	3,063	3,200	17.2
Cotton	715	752	15.2
Sugarcane	27,498	32,360	14.2
Coarse grains	1,600	1,620	5.0
Cottonseed	1,430	1,470	4.6
Rapeseed	247	265	1.8
Chickpeas	313	387	1.9
Total			98.4

¹See explanatory notes.

Sources: Government of Pakistan, FAS, ERS estimates.

Nearly 11.4 million tons of wheat were harvested in 1981, a 6-percent increase over the previous record. The Government's policy to maintain a price incentive for wheat growers appears to have paid dividends in terms of higher output in the last 2 years. The Government again raised the procurement price of wheat by 16 percent to \$149.50 a ton last year.

The output of rice, the second major export, is estimated at 3.2 million tons, nearly 5 percent higher than in 1980. Production increased because of the larger area planted, favorable weather, and lower pest infestation. The area planted to HYV rice in Punjab increased because of better procurement prices. HYV rice prices rose by 16 percent, versus 13.3 percent for Basmati paddy.

Pulse production during the past 3 years has suffered because of major blight damage to chickpea crops. Consequently, Pakistan had a serious shortage of pulses, and the Government was compelled to import them to meet domestic demand. Some progress has been made to increase output, but 1981's 646,000 tons was still below 1977's 811,000.

Cotton is a major source of Pakistani foreign exchange earnings and the mainstay of the domestic textile industry. Cotton production rose about 5 percent to 752,000 tons in 1981, versus the the Government's target of 790,000. The planted area was adequate to meet this goal, if weather and agricultural techniques had been better.

Pakistan's total exports rose by 11.5 percent to about \$2.9 billion; agricultural shipments grew more than 13 percent to \$925 million. Rice brought \$481 million, and raw cotton totaled \$393 million. Pakistan's total imports grew to \$5.5 billion, an increase of 22.2 percent. Major imports continue to be fertilizer, edible oils, petroleum, and capital goods.

U.S. agricultural exports to Pakistan were mostly P.L. 480 wheat, edible oils, and tallow. U.S. agricultural imports from Pakistan were red pepper, licorice root, goat-kid hair, and molasses.

General and Agricultural Outlook Mixed; Trade Picture Less Bright

Pakistan's economy during 1982 is expected to match or possibly improve on 1981's performance if political conditions, particularly the Afghan refugee situation, are stable. However, Pakistan's economy remains extremely vulnerable both to the climate and to the vagaries of the world market. At present, the outlook for agricultural production in 1982 is generally favorable, with bumper food crops in prospect and increases in sugar and fertilizer production planned in order to support a continued rise in GDP. Heavy rains during April and May, however, have

damaged the 1982 wheat crop. Production is currently estimated at 11 to 11.5 million tons, below the 12.4-million-ton target.

Pakistan's foreign trade situation for 1982 does not look as good as the overall agricultural production picture. The 1982 outlook for cotton exports is depressed; only 168,000 bales of the 1981 crop had been sold (contracted) by January 1982, compared with 1.5 million a year earlier.

SRI LANKA

Growth Up Only Slightly

Sri Lanka's real GDP increased nearly 6 percent in 1981, up slightly from 1980. Despite inflation and other economic problems on the domestic side and a continued worldwide recession, Sri Lanka's economy performed well without any major setbacks. To curb rapidly rising inflation and also to reduce further pressure on a sharply deteriorating balance of payments, the Government lowered development expenditures from 27 percent of GDP in 1980 to 16 percent in 1981. In addition, the economy had to cope with higher oil prices, increased inflation, and hydroelectric power shortages caused by periodic droughts.

Sri Lanka's exports were strong, and imports were substantially lower than a year ago. Among major exports, tea, rubber, coconuts, and textiles showed the largest gains in 1981, while petroleum imports were down from last year.

Agricultural Production Grew At Higher Rate

Total agricultural production increased 5 percent in 1981, compared with a drought-reduced rise of 2 percent in 1980. Total food grain production rose from 2.2 million tons in 1980 to 2.3 million last year. Over the long run, Sri Lanka's total agricultural production has risen steadily at an average rate of 2.5 percent.

Production of rice, the major staple, climbed about 3 percent to 1.5 million tons. The better-than-average crop was due mainly to good rains and adequate fertilizer distribution. In addition, the Government offered substantial incentives to farmers by raising the procurement price of paddy rice from Cey Rs 50 (\$1 = Cey Rs 18) a bushel (46 lbs) to Cey Rs 58. Also, inputs were made available to growers at subsidized prices, and the rice area expanded under the Mahawali irrigation project.

Tea production, which was harmed by drought during the past 2 years, rose from 191,000 tons in 1980 to 210,000 in 1981.

Production of rubber, the second major export commodity, moved up nearly 6 percent. Higher rubber demand provided the major incentive for growers to use better techniques in tapping and drying to increase production and minimize waste.

The production of coconuts—a major component in the domestic diet as well as a major export crop—increased

The 1982 market outlook for Pakistani rice is also not promising. Exports are not expected to reach the 1981 level because of bumper rice harvests by some of Pakistan's major customers. The declining demand is already affecting export prices, which dropped about \$45 to \$50 a ton for HYV rice. Slack export demand is expected to leave big stocks of rice by the end of 1982. [Amjad Gill (202) 447-8229]

Sri Lanka: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	1,000 tons		Percent
Rice	1,450	1,490	51.8
Tea	191	210	25.4
Rubber	156	165	8.5
Cassava	318	450	3.4
Copra	75	138	2.1
Sweet potatoes	170	96	1.0
Total			92.2

¹See explanatory notes.

Sources: Government of Sri Lanka, FAS, ERS estimates.

by 6 percent to 165,000 tons. Production of subsidiary food crops increased following termination of the wheat flour subsidy early in the year. The system of floor prices introduced in November 1979 was expanded to twelve minor food crops, and support prices were raised in early 1981.

Drought Expected To Reduce Rice Output

Real GDP in 1982 will depend mostly on weather, oil prices, trade, and energy use. About 20 percent of the rice area has been affected by a recent drought, which will likely reduce production 15 to 20 percent. If the shortfall materializes, Sri Lanka may need to import about 250,000 to 300,000 tons of rice this year. The drought is not only affecting agricultural production but is also reducing Sri Lankan electrical power capacity, which is mostly hydroelectric. As a result of power cuts, the industrial sector and the economy as a whole will suffer. The GDP growth rate is expected to be about 5 percent and could be lower if the rice crop is down considerably.

The balance of payments will likely suffer because of increases in prices, the volume of oil imports, and development expenditures. Furthermore, Sri Lanka's export earnings may decline because of weak demand for tea and rubber in world commodity markets. [Amjad Gill (202) 447-8229]

OCEANIA

The general economic situation in 1981 improved from the preceding year. Australian real growth climbed 3 percent as private investment increased substantially to support large projects for developing mineral resources. New Zealand's real GDP increased by 2.5 percent. Private consumption, investment, and agricultural

exports rose, temporarily supporting growth. The inflation rate for Oceania was reduced from the preceding year because of the slower rise in oil and food prices. Balance-of-payment problems became more acute as the value of imports exceeded exports. Both Australia and New Zealand had negative trade balances, which reduced

gold and foreign exchange holdings. However, the value of official reserve assets is large and will not restrain trade.

Oceania's agricultural production improved during 1981, especially during the last half, because the Australian drought was broken. While crop production improved, livestock output was below the previous year. Milk and wool yields were also reduced. Generally higher feed prices were responsible for reductions in livestock output.

Agricultural exports were smaller in 1981 than in 1980. Grain shipments dropped substantially because of drought-reduced supplies. Beef and veal shipments were less than the previous year because cattle and calf inventories continued to decline. However, export revenues from dairy products increased.

The general economy in 1982 is likely to deteriorate. Inflation is expected to move higher because of increases

in interest rates and wages. Unemployment may continue to be a problem. Balance-of-payment deficits may continue, as exports are depressed because of sluggish economic growth in major importing countries.

Agricultural production is expected to expand in 1982. Widespread rains in Australia during the autumn of 1981 improved pasture conditions and restored water levels in major irrigation reservoirs. Wheat area and production are likely to increase. However, livestock output may decline further because the cattle herd is smaller. Lamb and mutton production may only show small increases. Milk output also is expected to gain a small amount. The volume of agricultural exports is anticipated to rise. However, lower world prices may temper the total value. [Allen Johnson (202) 447-8378]

AUSTRALIA

Generally Weak Economic Performance

The Australian economy grew 3 percent during 1980/81, marginally better than the preceding year. Most of the growth was due to sectors other than agriculture. Substantial investment in mining and mineral processing stimulated aggregate demand. Inflation continued at about 10 percent, while unemployment declined to less than 6 percent of the labor force. The balance-of-payment deficit increased as imports soared. Nevertheless, the deficit was more than offset by a large inflow of private foreign capital, and reserve assets continued large.

Agriculture's contribution to the economy fluctuates greatly because of the vagaries of weather. The drought in northern New South Wales, Queensland, and parts of Western and South Australia was broken during the last half of 1981. While the weather improved, net farm income was virtually unchanged because the gain in gross income was offset by rising costs.

Crop Output Rebounds; Livestock Down

Crop production in 1981 showed a 23-percent gain from the drought-reduced yields of the preceding year. However, livestock output was off 4 percent because animal production takes longer to recover. Adequate moisture during wheat planting resulted in record area, increased yields, and substantially higher production. Even though

moisture in the middle of the season was poor, late rains boosted average yields. This resulted in a crop that was the second largest on record, 50 percent greater than a year ago. However, exports during the year were down substantially because of the previous year's small crop, and much of the production increase was used to rebuild depleted stocks.

Coarse grain production (mainly barley, oats, and sorghum) also improved from the previous year as plantings increased and yields returned to normal. Exports were down, because farmers fed substantial quantities to maintain livestock in the middle of the drought.

The crops not affected by the drought generally increased. The area devoted to cane sugar production continued to expand because of high world prices during previous years. The rice crop and cotton production were above a year earlier, because adequate irrigation was available. Oilseed production was down because the planted area was reduced. The horticultural crops, except grapes, had good yields.

Dry conditions continued to hinder livestock production. In many areas, cattle and sheep required supplemental feeding early in the year, and some were moved to northern areas with better forage. Cattle and calf numbers declined, and slaughter was off from 1980. Cattle inventories have declined for 6 consecutive years, somewhat longer than a normal beef cycle. Beef and veal exports were down 19 percent from the previous year. Shipments to the United States, Australia's major customer, were off about 30 percent, and the mislabeling of horsemeat as beef caused an additional disruption in shipments.

Lamb and mutton production was smaller in 1981 because of a decline in slaughter. Live sheep exports to the Middle East totaled about 6 million head, despite the Iran-Iraq conflict. Exports of lamb and mutton were only 1 percent below the previous year, with declining domestic consumption as well.

Wool production declined 1 percent in 1981. However, exports expanded because the world markets were active and prices were higher.

Prospects Uncertain for 1982

Australian economic activity in 1982 is expected to be less buoyant than in the recent past. Rising inflation

Australia: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	1,000 tons		Percent
Beef and veal	1,533	1,426	22.2
Wheat	10,870	16,372	21.4
Wool	700	691	13.8
Milk	5,562	5,241	8.2
Sugarcane	24,051	25,160	6.3
Lamb and mutton	551	519	3.0
Total			74.9

¹See explanatory notes.

Sources: Government of Australia, FAS, ERS estimates.

rates and higher wage settlements may perpetuate the upward price spiral. Since Australia is highly dependent on exports, slow economic growth in the rest of the world will likely have a negative impact. This could be reflected in lower export prices for agricultural commodities and reduced sales of coal, iron ore, and other basic raw materials. Nevertheless, economic activity in Australia may be greater than the average for the member countries of the Organization of Economic Cooperation and Development (OECD).

Improvement Likely in Agricultural Sector

Agricultural output should rise as crop production continues to expand. However, farm prices may be lower, depending upon world crop prices. Net farm income will likely show little change from last year's modest level, because costs are expected to rise in line with inflation.

Abundant wheat supplies are available not only to satisfy domestic needs but to greatly increase exports. Since foreign sales have been substantial, the volume shipped will depend upon Australia's ability to physically move the wheat and to avoid work stoppages and other problems. Increased support prices of wheat in recent years may mean that area will expand. For example, the

1981 initial payment, which is the guaranteed minimum price, was \$11 a ton more than the previous year.

Coarse grain exports are expected to rise during 1982, but prices will likely be lower because of a large world supply. Future coarse grain production may not expand as rapidly as wheat. Supplies have been replenished from the last crop, and the feed-intensive livestock sector is not expanding.

Livestock production will likely continue to recover from the drought. Beef production may be near last year's level as efforts are made to turn the cattle cycle. A larger calf crop due to improved pasture and range conditions and the withholding of cows and heifers from slaughter should stop herd liquidation. Thus, cattle numbers may stabilize or increase slightly. Beef exports to the United States are likely to continue at last year's lows.

Sheep production is more profitable than beef, and the size of the flock is anticipated to grow. The lamb population is expected to be larger because of more ewes and a higher lambing rate. Lamb and mutton production may remain near last year's level because more breeding animals are being retained and exports remain unchanged. [Allen Johnson (202) 447-8378]

NEW ZEALAND

Economy Beset by Inflation and Unemployment

Agriculture was generally profitable during 1981; however, the general economy continued to have problems. The volume of agricultural production was moderately below 1980, but rising prices increased the output value about 10 percent. However, rising production costs partially offset the gains in gross returns. The general inflation rate was 16 percent during 1981, with food price increases being a major cause. Unemployment rose to 6 percent—high by historical standards. The balance-of-payment position continues unfavorable with a deficit of \$849 million, compared with \$541 million for 1980.

Livestock Sector Has Mixed Performance

The sheep industry continued to expand in 1981, but dairy output was slightly below the 1980 record. Exports of animal products were mostly higher. The Government's guaranteed minimum prices for wool, lamb

and mutton, and beef have not been realized, and deficiency payments are being made.

Production of the most valuable agricultural commodity, wool, increased to a record during 1981. The output was 7 percent larger than the preceding year because of a 4-percent increase in the number of sheep and a higher yield per fleece. However, because prices declined, export revenues dropped in 1981.

Lamb and mutton output continued to rise and was 12 percent larger than in 1980. This is a reflection of New Zealand's policy to expand livestock production to generate more export earnings. Exports of lamb carcasses rose to a record because shipments to the Middle East were large, in spite of delayed payments for earlier shipments. Mutton output is about 30 percent of total lamb and mutton production. The New Zealand Meat Producers Board has been buying and storing large quantities of mutton instead of paying price supplements.

Milk production in 1981 was reduced from the excellent 1980 season. Dairy cattle numbers were about the same as in 1980, but output per cow declined because of poorer pastures. Cheese production was off 18 percent from the previous year because carryin stocks were excessive. Also, butter output was reduced. However, production of whole milk powder was up 35 percent, and skim milk powder was 7 percent above a year ago. New Zealand export receipts from dairy products rose 22 percent in 1981.

Cattle numbers have been relatively stable, and beef production declined a small amount because of lighter slaughter weights. Beef exports, mainly to the United States, were about the same as last year.

Crop production showed mixed trends in 1981. The wheat crop was again short of meeting local requirements, and Australian wheat was imported. The barley crop was larger, and 52,000 tons were exported to the USSR. Corn yields were good, and 22,000 tons were

New Zealand: Production of selected agricultural commodities

Commodity	1980	1981	Share of total production ¹
	1,000 tons		Percent
Beef and veal	505	490	23.8
Milk	6,692	6,555	25.6
Lamb and mutton	560	626	19.3
Wool	357	381	17.1
Total			85.8

¹See explanatory notes.

Sources: Government of New Zealand, FAS, ERS estimates.

exported. Apple and kiwi fruit production increased from the preceding year.

Little Economic Recovery Expected For 1982

The general economy is not expected to improve in 1982. An inflation rate of 16 percent has been projected, and unemployment may grow worse if export activities decline because of the overseas recession. Agricultural production is expected to fall slightly because of dry con-

ditions earlier this year. Agricultural exports may show a similar decline. Government-guaranteed minimum prices, which cannot be less than last year, will likely result in increased expenditures.

U.S. exports to New Zealand will increase temporarily because of an unusual action by the New Zealand Dairy Board to purchase 100,000 tons of surplus U.S. butter. The butter will be reprocessed into butter oil and moved into world markets with a minimum disruption. [Allen Johnson (202) 447-8378]

CENTRALLY PLANNED ASIA

The subregion's combined 1981 rice harvest is estimated at 10.9 million tons, compared with 10.5 million for 1980. Despite increased output, supplies will not be sufficient to avoid food grain imports during 1982. The Democratic People's Republic of Korea (DPRK) will be in a position to export more rice, but the other countries will continue in deficit.

Kampuchea is scheduled to receive nearly 300,000 tons of rice in 1982, following a mediocre 1981 harvest. Vietnam will require large cereal imports to meet serious shortages in certain provinces affected by natural calamities. Laotian rice supplies are short in the northern provinces, and the country may require imports in 1982.

The entire centrally planned subregion suffered the usual seasonal typhoons and floods, coupled with drought in some areas, but it appears that crop losses in certain areas were offset by better performances in others. For example, the Vietnamese assert that the southern prov-

inces had over 200,000 hectares less harvested area in 1981 but that better management and other efforts in the north offset this.

It is estimated that the Indochinese countries will need about 3.2 million tons of imported cereals in 1982 to maintain diets at the Food and Agricultural Organization (FAO) recommended level of around 2,200 calories per person per day.

The DPRK economic and agricultural situations are generally bright, particularly when compared with other centrally planned economies. Aggregate grain output was close to 7 million tons, with rice at 3 million and corn at least 1.9 million. Rice exports during 1981 were about 300,000 tons, slightly above 1980. The country hopes to expand its cropland during the 1980's by adding 300,000 hectares of reclaimed tideland and 200,000 hectares of marginal land. [William Hall (202) 447-8229]

VIETNAM

Economy Remains Sluggish

Vietnam's economic performance in 1981 was generally weak. Although data on GNP growth and other indicators are not available, government officials at several levels have noted that 1981 brought many reversals, particularly in agriculture. It was necessary to devalue the dong, institute economic reforms, and reallocate resources toward improving food production.

The 1981 rice crop is estimated at 10.5 million tons, compared with 10 million in 1980, because of better management and the introduction of rice contract prices in agricultural cooperatives in the Haiphong and the neighboring Red River Delta provinces. The new incentive is to be extended, but there are internal party differences about the wisdom of doing so. But, despite increased crop production in 1981, food shortages persisted in the central and northern areas.

Food imports continue to be Vietnam's major problem. Foreign exchange reserves are not known, but official data place the foreign debt at \$3 billion, on which the 1981 payment came to about \$240 million. The country continues to rely heavily on donor countries and multila-

teral organizations for food aid. Cereal imports were estimated at 1 million tons for 1980 but declined to about half that level in 1981 as better growing conditions increased the rice harvest.

Increased Grain Output Targeted

Despite annual weather-related crop losses and other reversals in agriculture, Vietnam's rice output moved up from an annual rate of about 9 million tons in the 1960's to 11 million for the late 1970's. High population growth, internal conflict, and poor weather have impeded agricultural output, but progress has not been totally stopped.

The food production target for 1982 is set at 16 million tons, including 13 million of paddy rice. The available arable land would permit such output during 1982, but the effectiveness of management, fertilizer and fuel supplies, and the 1982 monsoon will determine the outcome.

For Vietnam's agricultural sector, the new incentives and the development of new economic zones may prove beneficial over time. [William Hall (202) 447-8229]

ASIAN RICE SITUATION AND OUTLOOK

Events Of 1981 Cause Prices To Fall

Several developments made 1981 a tumultuous year for the Asian rice market and for world prices. Many developments, such as the Korean purchases and good Southeast and South Asian harvests, were weather-related, one-time occurrences. Others, especially yield advances in Indonesia and Burma, and continuing efforts to decrease producer subsidies in East Asia, have long-term implications.

Reflecting large shifts in trade patterns during the year, prices stayed high until May and June 1981, when they started a steep decline. World trade prices had begun to rise in late 1980, spurred by news of a Korean crop failure in that year. The South Korean Government, apparently underestimating production and stocks, tried to line up import commitments quickly and in late 1980 secured a U.S. agreement for Japan to sell South Korea up to 1 million tons of subsidized rice on concessional terms. To compensate the unsubsidized U.S. farmers, South Korea agreed to buy the rest of the 1980 California harvest, as well as 200,000 tons of southern U.S. rice and 500,000 tons of the 1981 California crop. These announcements, as well as significant purchases of rice from other countries (for a total of over 2 million tons in 1981), kept rice prices up in early 1981.

The onset of monsoon rains during May and June 1981 in Southeast and South Asia began a favorable rainy season. The monsoon activity ended about a month earlier than normal, but several rice-growing areas, especially in Southeast Asia, received timely post-monsoon rains. The resulting bumper harvests put an end to the chance that 1982 would be a sellers' market, especially since the 1981 U.S. harvest increased by 26 percent. Drought in Sri Lanka and Malaysia did not offset the remarkable harvests of other Asian nations.

A further factor boosting rice supplies was increased output in Indonesia and Burma. While good weather

helped both countries in 1981, changing farm practices were also responsible. Indonesia has raised its output for several years, partly as a result of improved management practices. This allowed a sharp reduction in imports, from over 2 million tons in 1980 to 543,000 in 1981. Burma has instituted a package of cultural improvements and increased input use in one district after another, noticeably affecting yields and export availability.

Subregional Developments: East Asia

In 1981, crops in Korea recovered to earlier levels, but Japan continued to face weather problems. East Asia, in recent years an exporter, became a large net importer because of South Korea, whose imports went partly for a large stock buildup. Rising Korean stocks masked a decline in Japan's, but 1982 should see an overall drop in stocks for the subregion. At 2.85 million tons in late 1982, Japan's expected stocks will be less burdensome than in 1979, when they peaked at 6 million tons.

Small farms are becoming less viable as labor costs mount and subsidies cause large fiscal deficits. Japan, and to some degree Taiwan, are reducing their surpluses. South Korea is increasingly troubled by the costs of raising production. Thus, production may fall faster than consumption in the 1980's. Only the DPRK, with large, mechanized farms and more cropland being reclaimed from the tidelands, is well situated to increase production and exports.

Southeast Asia

With 1981 harvests 5 million tons above 1980 and about 9 million over 1979—a drought year—Southeast Asia enjoys, and to an extent is burdened by, surplus rice. The exceptions are Kampuchea, where spotty rains and civil war kept area and yields below pre-1978 levels, and Vietnam, which has yet to tap the Mekong Delta's potential. Good weather and better price prospects expanded har-

Table 1—East Asia¹—Rice production, stocks², and trade, 1979-82

Year	Area harvested	Yield	Production	Beginning stocks	Imports	Exports	Ending stocks
	1,000 ha	Tons/ha			1,000 tons		
1979	5,231	4.069	21,283	7,458	643	1,113	7,511
1980	5,047	3.514	17,735	7,511	1,155	1,237	7,540
1981	4,980	3.924	19,544	7,540	2,740	1,434	6,204
1982 ³	4,923	4.087	20,120	6,204	915	980	4,978

¹Japan, Hong Kong, DPRK, South Korea, and Taiwan. ²No stock data available for DPRK. ³Forecasts.

Table 2—Southeast Asia¹—Rice production, stocks², and trade, 1979-82

Year	Area harvested	Yield	Production	Beginning stocks	Imports	Exports	Ending stocks
	1,000 ha	Tons/ha			1,000 tons		
1979	34,826	1.401	48,807	6,317	2,913	3,421	5,107
1980	35,152	1.500	52,725	5,107	2,963	3,691	6,923
1981	35,400	1.633	57,803	6,923	1,216	3,836	9,347
1982 ³	35,238	1.645	57,975	9,347	1,036	4,070	9,437

¹Burma, Indonesia, Kampuchea, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. Trade includes estimate for Brunei. ²No stock data available for Kampuchea, Laos, and Vietnam. ³Forecasts.

vested area in Thailand, but yields remained low. Even so, production hit an all time high. Rising yields in Burma and Indonesia and the record Thai crop pushed the subregion's net exports well above 1979 and 1980. Both Thailand and Burma faced the need to market rice more aggressively. Thailand reduced its export tax to make its rice cheaper, thus increasing foreign exchange earnings without hurting producers and private exporters.

The 1982 outlook, given normal weather, is that Thailand and Burma will continue to scramble for markets. Indonesia has cancelled some large import contracts. Malaysia, hurt by dry conditions in January, is likely to become the subregion's largest importer, followed by Indonesia, Singapore, and Kampuchea. The subregion may export 3 million tons, net; however, the exportable surplus will be considerably higher.

The longer term outlook, although heartening for food security, is not encouraging for rice prices. Southeast Asian stocks have grown. Rice self-sufficiency in Indonesia and Indochina will likely expand, even though increases in consumption per person are expected.

South Asia

South Asia remained a net exporter of rice in 1981, with large shipments by Pakistan (1 million tons) and India (940,000). The early withdrawal of the monsoon hurt production in eastern India and Bangladesh, and drought hit Sri Lanka at year's end. However, post-monsoon rains helped rice elsewhere in India and Pakistan. Yields for the subregion remained lower than in the rest of Asia and Sri Lanka's ambitious effort to increase yields was temporarily thwarted by drought.

South Asian rice stocks, at least 7.9 million tons at the end of 1981, increased marginally over 1980 but were well below 1979, largely because of India's decisions to

increase exports and at the same time release rice to supplement tighter domestic wheat supplies. The near-term outlook for rice supplies in South Asia is uncertain. Because of the low incomes and financial constraints that limit commercial imports, low stocks (for about 800 million people) mean that food security remains fragile.

Outlook for Trade in 1982 and Beyond

This year's trade will be influenced by the large rice surpluses left from 1981 production. The net exports from the three subregions may be 4 million tons if most major countries have normal weather. The 2-million-ton stock drawdown will be mainly in excess stocks in East Asia and an expected drop of 800 thousand tons in South Asia. For U.S. farmers, the only significant Asian market in 1982 will be South Korea, taking 500,000 tons.

Some longer term changes in rice trade may result from the continued high disparity between producer and consumer prices, and that among countries. As in earlier years, producer prices in East Asia were high in 1981. Subsidies and high consumer prices fell under greater attack, and this may lead to increased South Korean reliance on cheaper imports and possibly an end to Japanese and Taiwanese exports. Low producer prices in Burma and Thailand mean that those countries could raise prices while still remaining competitive in the world market. Higher producer prices could lead to better management and higher yields. Real advances in Southeast Asia are still vulnerable to politics, the weather, and other natural setbacks. But for Asia as a region, growing surpluses look plausible in the 1980's. Without growth in effective world demand, rice prices may fall further. [John Dyck (202) 447-8229]

Table 3—South Asia¹—Rice production, stocks², and trade, 1979-82

Year	Area harvested	Yield	Production	Beginning stocks	Imports	Exports	Ending stocks
	1,000 ha	Tons/ha			1,000 tons		
1979	53,718	1.142	61,342	9,103	904	1,465	11,668
1980	53,943	1.341	72,373	11,668	585	1,546	7,662
1981	54,923	1.355	74,432	7,662	307	2,250	7,799
1982 ³	55,165	1.363	75,183	7,799	454	1,645	6,953

¹Afghanistan, Bangladesh, India, Nepal, Pakistan, and Sri Lanka. ²No stock data available for Afghanistan and Nepal. ³Forecasts.

Table 4—Asia¹—Production, trade, and stocks, 1979-1982

Year	Area harvested	Yield	Production	Beginning stocks	Imports	Exports	Net exports	Ending stocks
	1,000 ha	Tons/ha			1,000 tons			
1979	93,775	1.402	131,432	22,878	4,446	5,999	1,533	24,286
1980	93,883	1.517	142,833	24,286	4,684	7,178	2,494	22,125
1981	95,303	1.593	151,779	22,125	4,360	7,520	3,160	23,350
1982 ²	95,326	1.608	153,278	23,350	2,389	6,695	4,306	21,368

¹East, Southeast, and South Asia as previously defined. ²Forecasts.

Table 5—Producer and consumer rice prices, 1981

Country	Producer price ¹	Notes	Consumer price ¹	Notes
Japan	1,658		1,430	Tokyo
South Korea	1,036	Nov.-Oct. 1980/81	1,145	Nov.-Oct., Milyang
Taiwan	692		580	
Burma	103	April-March 1981/82 Emata	NA	
Indonesia	301	Aug.-Oct. 1981	231	Medium quality, 34-city average
Malaysia	461	Long grain	481	controlled price, long grain
Philippines	230		332	
Singapore—			582	Thai rice, 100 percent Jan.-June 1981
Thailand	204	Paddy, 5 percent broken	325	Bangkok markets, 5 percent broken
Bangladesh	231	Procurement price ²	187	Price for a .7 kg/wk ration ²
India	182	Procurement price ²	221	Issue price, fine grade (below average)
Nepal	270		310	
Pakistan	170	Non-Basmati	398	Non-Basmati, Jan.-Nov.
United States	361	Southern	1,241	Long grain
Australia	290	April-March 1981/82	1,998	Long grain

¹U.S. dollars per ton, milled equivalent. ²A minimum price.

REVIEW OF U.S. AGRICULTURAL DEVELOPMENT AND TRADE PROGRAMS IN ASIA

Asia was not only an important commercial market for U. S. agricultural products in 1981, but also the recipient of substantial U.S. food aid and agricultural and rural development assistance¹. Commercial agricultural trade, government-supported market development activities, Commodity Credit Corporation (CCC) programs, and Agency for International Development (AID) expenditures all registered increases in 1981. However, the volume of food aid shipped under P.L. 480 and other concessional programs declined as the agricultural situation in many Asian countries showed some improvement.

Agricultural and Rural Development Programs Increase

U.S. interest in Asian political stability and trade and investment growth is the rationale for large and continuing programs to help ameliorate low agricultural productivity and inadequate marketing and distribution of food. Worldwide AID programs in the area of agriculture, rural development, and nutrition² showed modest growth in 1981, with an increasing share going to the Asian region. About \$285 million or 45 percent of the total went to Asia, mainly to India, Bangladesh, Sri Lanka, and Indonesia.

P.L. 480 and Other Food Aid Programs

The value of P.L. 480 shipments to Asia dropped 19 percent in fiscal 1981. With commodity prices generally up, the actual volume was off about 24 percent. The decline was due to sharply reduced shipments to Kampuchea and Indonesia, as well as most other traditional Asian recipients. Shipments to Pakistan—the only exception—increased 13 percent, with most of the rise

going to the World Food Program's effort to assist Afghan refugees.

Wheat, wheat flour, bulgur wheat, nonfat dry milk, rice, and soybean oil were the principal P.L. 480 commodities exported to Asian countries in 1981. The largest recipients were India, Pakistan, Indonesia, Bangladesh, and South Korea.

P.L. 480 resources have shifted out of the Asian area because of the end of U.S. commitments in Southeast Asia, as well as rising incomes in several recipient countries. The value of P.L. 480 shipments to South Korea, for example, has declined from a high of \$157 million in 1972 to \$28 million in 1981, the last year of concessional programs for that country.

CCC Programs

CCC programs for Asian countries increased 8 percent and were valued at \$518 million in fiscal 1981. Much of this was in the form of export credit guarantees (GSM-102)³ and was used principally by South Korea for the purchase of cotton, wheat, corn, and soybeans. South Korea's increased use of this program reflects its improved income situation and greater ability to import

¹The U.S. contribution to multilateral entities, such as the United Nations and the Asian Development Bank, that support agricultural development programs in Asia are not covered in this article.

²Does not include similar programs under the Economic Support Fund.

³The Export Credit Guarantee Program is designed to expand U.S. agricultural exports by stimulating U.S. bank financing of foreign purchases on credit terms of up to 3 years. In every transaction, the foreign buyers' bank must issue an irrevocable letter of credit covering the port value of the commodity exported. CCC's guarantees will cover most of the amount owed to the U.S. bank in case the foreign bank defaults.

U.S. agricultural development and trade programs in Asia, FY 1980 and FY 1981

Country	Agricultural and rural development Assistance, U.S. AID ¹		P.L. 480 ²		CCC programs ³		USDA-supported market development programs ⁴	
	1980	1981	1980	1981	1980	1981	1980	1981
	<i>1,000 dollars</i>							
Afghanistan	—	—	—	—	—	—	—	—
Bangladesh	74,020	65,700	77,932	61,677	—	—	—	—
Burma	—	—	—	—	—	—	—	—
Hong Kong	—	—	—	—	—	—	677	1,473
India	79,500	94,600	123,367	120,391	—	—	177	155
Indonesia	48,473	31,115	114,573	66,125	—	—	—	7
Japan	—	—	—	—	—	—	4,453	4,495
Kampuchea	—	—	36,258	17,327	—	—	—	—
North Korea	—	—	—	—	—	—	—	—
South Korea	—	—	32,532	27,576	404,600	470,800	735	694
Malaysia :	—	—	—	—	—	—	4	1
Nepal	8,538	9,400	5,418	3,658	—	—	—	—
Pakistan	—	—	69,062	78,210	49,900	15,500	9	9
Philippines	—	—	24,282	20,386	14,400	—	235	217
Singapore	—	—	—	—	—	—	983	1,074
Sri Lanka	23,050	46,000	30,855	21,570	—	6,400	—	—
Taiwan	—	—	—	—	—	—	447	427
Thailand	13,083	17,600	—	—	13,300	25,600	54	55
Vietnam	—	—	—	—	—	—	—	—
Total Asia	278,551	285,965	514,279	416,920	481,700	518,300	7,774	8,607
Total world	630,827	635,615	1,518,553	1,437,638	1,461,000	1,853,000	21,645	22,938

¹Includes nutrition programs. ²Includes title I and II and AID mutual security aid. ³GSM-5 and 101 programs in 1980 and GSM-101 and 102 programs in 1982. ⁴Includes FAS projects, contributions to cooperators, and the EIP.

agricultural products on commercial terms. Next to Poland, Korea was the largest recipient of CCC program assistance in 1981.

Other Asian countries receiving export credit guarantees (GSM-102) were Thailand, Pakistan, and Sri Lanka.

Government Support for Commercial Trade

Government-supported market development activities increased 11 percent in 1981, to \$8.6 million. In addition to the credit programs, Foreign Agricultural Service (FAS) projects, contributions to cooperator groups, and the export incentive program (EIP)⁴ are the principal ways in which the Government encourages expansion of commercial markets.

Asian projects, representing 38 percent of total FAS expenditures in fiscal 1981, are concentrated in Japan and middle-income East Asia. Japan, Korea, and Taiwan have all surpassed the \$1 billion level as U.S. agricultural markets and receive about 75 percent of total market development expenditures in Asia. It should be noted that some expenditures in Hong Kong are in support of market development activities in the People's Republic of China (PRC).

Growing attention has been focused on the ASEAN countries. An Agricultural Trade Office (ATO) was set up in Singapore in 1980 to service and promote U.S. agricultural exports to Thailand, Indonesia, Singapore, and Malaysia. The Singapore and Indonesia markets, in particular, have grown rapidly in recent years and, along with Malaysia and Thailand, represented a combined market of \$874 million in 1981.

Market development expenditures in Asia center on the promotion and servicing of the wheat, soybean, feed grain, and cotton trade. Total expenditures in Japan have slowed in recent years as attention has shifted away from the established feed grain, cotton, soybean, and wheat markets to higher value-added items.

Government-to-government discussions take place routinely or occasionally to deal with policy questions that cannot be resolved by the private sector alone. Animal and plant quarantine regulations, product standards, import procedures, quotas, and high tariffs are among these policies. Some are imposed for health reasons and others for economic and political reasons. The Mediterranean fruit fly infestation in California led to U.S. negotiations with Japan in August 1981. The resulting agreement minimized disruption in fruit trade. Japan agreed to import fruit from counties that weren't infested as long as it was properly fumigated or cold-treated. As for another example, Secretary Block's October discussions with government officials in Japan, Korea, and the PRC were designed to help establish a working relationship with those countries and at the same time to raise issues of market access for beef, citrus, and other products in the case of Japan, and of rice purchases and credit guarantees for Korea. [William T. Coyle (202) 447-8860]

⁴Exporters are paid a certain share of the value of their exports in excess of a given base. EIP funds are used for product promotion purposes only.

PROSPECTS FOR ASIAN AGRICULTURE IN THE 1980's

Current projections indicate a mixed but generally favorable economic outlook for Asia during the 1980's.¹ Growth in the high- and middle- income economies of East Asia is expected to continue strong, but at a slower pace than in the 1970's. Slower annual growth in real GNP of 4.5 percent is projected for Japan, Asia's largest economy, because of its already large economic base and more limited world export demand during the 1980's. Similar factors influence projections for slower growth in East Asia's middle-income economies.

The economies of Southeast Asia, generally characterized by extensive natural resources and limited dependence on exports of manufactured products, are projected to sustain annual real growth of 7 percent during the 1980's. Higher growth rates are projected for Burma, Malaysia, Vietnam, Kampuchea, and Laos, while growth similar to that in the 1970's is expected in the Philippines, Thailand, and Singapore. Growth in Indonesia, Southeast Asia's largest economy, is expected to slow.

The Asia region as defined here includes Afghanistan, Bangladesh, Burma, Hong Kong, India, Indonesia, Japan, Kampuchea, Laos, Malaysia, Nepal, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, and Vietnam. Major Asian countries not included in the projections are North Korea and the People's Republic of China.

This decade will likely bring a modest improvement in real growth for the low-income economies of South Asia, with the exception of Bangladesh. Faster growth in India, Pakistan, Sri Lanka, and Nepal will result from continued gains in farm production and an easing of infrastructural problems that have constrained industrial output. A weak industrial sector is expected to slow growth in Bangladesh.

Rice

Asian rice production is projected to increase at an annual rate of 2.5 percent during the 1980's, slightly faster than during the 1970's. While rice area in several South and Southeast Asian countries will continue to increase, largely through more double cropping, gains in output will depend more heavily on higher yields.

Faster growth in rice production is expected in India and Bangladesh, a result of effective price policy, improved irrigation facilities and fertilization practices, and continued expansion of HYV area. Area and yield constraints will, however, slow growth elsewhere in South Asia. Southeast Asian production is expected to

increase 3.1 percent annually during the 1980's, the same as in the 1970's. Continued gains in output are

Table 1—ASIA: Historical and projected annual growth rates of real GNP and population by region

Region	Real GNP	Population
	Percent	
JAPAN		
1970-80 actual	5.6	1.1
1980-90 projected	4.5	.8
MIDDLE-INCOME EAST ASIA ¹		
1970-80 actual	8.5	1.9
1980-90 projected	7.3	1.8
SOUTHEAST ASIA ²		
1970-80 actual	7.0	2.4
1980-90 projected	7.0	2.1
INDIA		
1970-80 actual	3.4	2.3
1980-90 projected	4.0	2.2
OTHER SOUTH ASIA ³		
1970-80 actual	5.5	2.7
1980-90 projected	5.3	2.7
TOTAL		
1970-80 actual	5.8	2.3
1980-81 projected	4.9	2.2

¹Hong Kong, South Korea, and Taiwan. ²Burma, Indonesia, Kampuchea, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam. ³Afghanistan, Bangladesh, Nepal, Pakistan, and Sri Lanka.

Table 2—ASIA: Historical and projected production, consumption, and trade of milled rice by region

Region	Area	Yield	Pro- duc- tion	Consumption		Net im- ports
				Total	Per capita	
	Mil. ha	Tons/ ha		Mil.tons	Kgs	Mil. tons
JAPAN						
1969-71	3.0	3.8	11.4	11.5	111	-.5
1979-81	2.4	4.0	9.7	10.1	86	-.6
1990	1.9	4.7	9.1	9.1	71	0
MID-INCOME EAST ASIA						
1969-71	2.0	3.1	6.2	7.1	139	1.1
1979-81	1.9	3.7	7.0	8.1	132	1.2
1990	1.8	4.0	7.5	8.4	115	.9
S.E. ASIA						
1969-71	31.3	1.3	39.9	39.9	141	—
1979-81	35.0	1.5	54.0	51.4	144	-1.7
1990	36.7	2.0	71.6	67.6	155	-4.0
INDIA						
1969-71	37.7	1.1	41.9	42.1	76	.2
1979-81	39.7	1.2	49.5	50.6	73	-.6
1990	42.4	1.6	66.9	66.3	77	-.6
OTHER SO. ASIA						
1969-71	13.4	1.2	16.1	16.5	96	.5
1979-81	14.5	1.3	19.6	19.0	86	-.7
1990	15.6	1.6	25.0	23.8	83	-1.2
TOTAL						
1969-71	87.4	1.3	115.5	117.1	101	1.3
1979-81	93.5	1.5	139.8	139.2	96	-2.4
1990	98.4	1.8	180.1	175.2	98	-4.9

— = Less than 50,000 tons.

¹Projections are from a semi-annual exercise carried out in the Asia Branch. The exercise starts with development of economic and population growth assumptions to 1990 for each of the region's countries. The expected effect of the macroeconomic assumptions on consumption of seven agricultural commodities (rice, wheat, coarse grains, oilseeds, protein meal, vegetable oil, and cotton) is estimated. The demand assumptions are then combined with agricultural supply estimates based on various resource and productivity assumptions to estimate import demand for each of the seven commodities. Constant prices and average weather are assumed throughout the projection period. Furthermore, it is assumed that no dramatic shift in government policy will take place.

The Asia region as defined here includes Afghanistan, Bangladesh, Burma, Hong Kong, India, Indonesia, Japan, Kampuchea, Laos, Malaysia, Nepal, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, and Vietnam. Major Asian countries not included in the projections are North Korea and the People's Republic of China.

projected for Burma and Indonesia, and a recovery in production is expected in Vietnam, Kampuchea, and Laos. In East Asia, production likely will continue to decline because of acreage diversion programs in Japan and Taiwan.

Strong consumption growth in the low-income countries of South Asia and in several Southeast Asian countries is expected to boost annual growth in rice consumption to 2.3 percent in the 1980's. However, slower increases are expected in most Asian countries because of reduced population growth and the already high levels of per capita consumption achieved during the 1970's.

In India, per capita rice consumption is expected to increase because of stronger gains in income and expanded distribution of subsidized rice. These same factors are likely to accelerate consumption growth in other South Asian countries as well, but per capita consumption will continue to decline. On the other hand, rising per capita rice consumption is projected in Southeast Asia as a result of economic recovery in Vietnam, Kampuchea, and Laos and further increases in the Philippines and especially Indonesia. Rice consumption in the high-income countries of East Asia will decline further as consumers continue to diversify their diets.

Continued gains in self-sufficiency among traditional importers and steady increases in exportable supplies for most exporters will likely characterize Asian rice trade during the 1980's. Net rice exports are projected to grow from an average 2.4 million tons per year during 1979-81 to nearly 5 million in 1990. Thailand, Burma, and Pakistan are expected to expand their exports, while Indian shipments may remain near 1979-81 levels. Exportable surpluses should be eliminated in Japan and Taiwan. South Korea, Indonesia, and Bangladesh are expected to remain the region's major rice importers through 1990, although self-sufficiency will increase somewhat. Rice imports are projected to rise in Vietnam, the Philippines, and the city states of Hong Kong and Singapore.

Wheat

Annual growth in Asian wheat consumption is expected to slow from 3.6 percent in the 1970's to about 3.2 percent in the 1980's, but will continue to be more rapid than for any other cereal. Per capita consumption of wheat is projected to increase in nearly all Asian countries as a result of rising incomes and consumer preference for wheat and wheat products.

Gains in consumption will continue to be greatest in the nonproducing countries of Southeast Asia where per capita use remains low, particularly in Indonesia, Malaysia, Thailand, and the Philippines. The middle-income countries of East Asia, principally South Korea and Taiwan, are expected to show slightly stronger increases in wheat consumption than in the 1970's. However, wheat use will likely grow more slowly in most South Asian countries, where relatively high per capita consumption was achieved during the 1970's, and where greater stability in total cereal production should reduce the need for wheat imports to compensate for shortfalls.

Asian wheat production will continue to be concentrated almost exclusively in South Asia. Production gains there are expected to slow from the sharp 4.5-percent annual rate achieved during the 1970's to about 3.7 percent during the 1980's, largely because of area constraints. Wheat yields are expected to increase by 2.4 percent annually, down slightly from the 1970's rate, with continued strong growth made possible by effective

Table 3—ASIA: Historical and projected production, consumption, and trade of wheat by region

Region	Area	Yield	Pro- duc- tion	Consumption		Net im- ports
				Total	Per capita	
	Mil. ha	Tons/ ha		Mil. tons	Kgs	Mil. tons
JAPAN						
1969-71	.2	2.5	.6	5.3	50	4.7
1979-81	.2	3.0	.6	6.1	52	5.6
1990	.3	3.6	1.2	6.8	53	5.6
MID-INCOME EAST ASIA						
1969-71	.1	2.3	.2	2.6	51	2.5
1979-81	—	3.2	.1	2.8	46	2.8
1990	—	3.0	.1	3.6	49	3.5
S.E. ASIA						
1969-71	.1	.6	—	2.8	10	2.8
1979-81	.1	1.2	.1	4.1	12	4.1
1990	.2	2.0	.5	7.6	17	7.1
INDIA						
1969-71	16.9	1.2	20.9	22.4	41	2.6
1979-81	22.3	1.6	34.6	35.8	52	.5
1990	24.8	2.0	48.4	48.7	57	.3
OTHER SO. ASIA						
1969-71	8.7	1.1	9.3	12.0	70	2.8
1979-81	9.9	1.4	13.9	16.8	76	2.7
1990	11.6	1.8	21.1	23.0	80	1.9
TOTAL						
1969-71	26.0	1.2	31.0	45.1	39	15.4
1979-81	32.5	1.5	49.3	65.6	45	15.6
1990	36.9	1.9	71.3	89.7	50	18.4

— = Less than 50,000 ha. or 50,000 tons.

administration of producer incentives and improvements in cultural practices. Production in Bangladesh, Japan, and Burma will show strong growth, although from a small base, because of policies directed at increasing wheat acreage in those countries.

Regional net wheat imports are projected to expand from 15.4 million tons during 1969-71 and 15.6 million during 1979-81 to over 18 million by 1990. Continued gains in wheat import demand by nonproducing countries are expected to offset improved rates of self-sufficiency in virtually all of the region's producing countries and lead to sustained growth in the region's net imports. Import demand will expand most rapidly throughout Southeast Asia and in South Korea and Taiwan. However, imports by Japan, Asia's largest purchaser of wheat through most of the 1970's, are expected to show no growth as rising domestic production offsets increased consumption. Steady gains in self-sufficiency are projected to reduce wheat imports in India, Pakistan, and Bangladesh, but nonproducing Sri Lanka will increase purchases.

Coarse Grains

Consumption of coarse grains is projected to increase 3 percent a year through the 1980's, reaching 94 million tons by 1990. The rate of growth will be about the same as during the 1970's because of offsetting developments at opposite ends of the region. In India, per capita consumption will not fall as quickly as in the 1970's because of expansion in India's dairy and poultry industries. On the other hand, falling rates of income growth in Japan

and middle-income countries in East Asia will lead to slower growth in demand for coarse grains as a livestock feed.

About 60 percent of Asia's coarse grains are currently used for human consumption, and the rest for feed. These shares will probably change during the 1980's as more grain is fed to livestock and less is consumed as a food staple in India and other South Asian countries.

In Singapore, Japan, and Taiwan, where diets are the most westernized and livestock production is significant and expanding, per capita consumption of coarse grains will remain high. By 1990, annual per capita consumption in Japan and middle-income East Asia will be 234 and 148 kilograms, respectively, compared with 37 for India and 13 for other South Asian countries.

Coarse grain production in Asia will expand more rapidly than in the 1970's but will still grow more slowly than consumption. Production should reach 55 million tons by 1990, with more than half of that coming from India. Another 30 percent will be produced in Southeast Asia, mainly in Thailand and Indonesia.

With consumption growing more rapidly than production, Asia's self-sufficiency in coarse grains will decline from 65 percent during 1979-81 to about 60 percent in 1990. Coarse grain imports will total 39 million tons by 1990, with 99 percent destined for Japan, South Korea, Taiwan, and Hong Kong. Thailand, Burma, and India will be Asia's principal exporters of coarse grains, mainly corn.

Table 4—ASIA: Historical and projected production, consumption, and trade of coarse grains¹ by region

Region	Area	Yield	Pro- duc- tion	Consumption		Net im- ports
				Total	Per capita	
	Mil. ha	Tons/ ha	Mil. tons	Kgs	Mil. tons	
JAPAN						
1969-71	.3	2.7	.7	11.4	109	10.3
1979-81	.1	3.1	.4	19.0	162	18.7
1990	.2	3.6	.6	29.7	234	29.1
MID-INCOME						
EAST ASIA:						
1969-71	.8	2.1	1.8	3.2	63	1.4
1979-81	.4	3.1	1.3	7.9	129	6.3
1990	.3	3.2	1.0	10.8	148	9.8
S.E. ASIA						
1969-71	6.7	1.1	7.3	5.5	20	-1.7
1979-81	9.0	1.3	12.0	10.8	30	-1.1
1990	10.8	1.6	17.5	18.2	42	.7
INDIA						
1969-71	45.7	.6	27.4	27.6	50	.1
1979-81	41.4	.7	28.2	28.5	41	-.1
1990	40.6	.8	32.4	32.0	37	-.4
OTHER						
SO. ASIA						
1969-71	3.5	1.0	3.6	3.6	21	—
1979-81	3.0	1.1	3.4	3.4	15	—
1990	3.1	1.2	3.6	3.6	12	—
TOTAL						
1969-71	57.0	.7	40.8	51.3	44	10.1
1979-81	53.9	.8	45.3	69.6	48	23.8
1990	55.0	1.0	55.1	94.3	53	39.2

— = None or negligible.

¹Corn, sorghum, barley, rye, millet, and oats.

Oilseeds

Asia's consumption of oilseeds, either for crushing or for more direct human uses, will reach 44 million tons by 1990. Consumption growth for all of Asia will be slightly faster in the 1980's than in the 1970's, mainly influenced by faster growth in oilseed production and crushing in India. In most countries, however, the increase in consumption will slow because of lower expected growth in livestock production. In Japan, slower rates of growth in crush will lead to somewhat greater dependence on imported protein meal.

Production of oilseeds will expand 4 percent a year through the 1980's, reaching 33 million tons by 1990. Area planted in oil-bearing crops will expand 1 percent a year and reach 39 million hectares by 1990. Increases in yields resulting from greater use of HYV's and improved agricultural practices, as well as expanded productivity from more mature stands of oil-bearing palms in Southeast Asia, will contribute more to rising production than will increased area.

Asian countries will expand oilseed imports 4 percent a year through the 1980's, reaching 11 million tons by 1990. Future trade growth is explained by expected increases in crush demand in Japan, middle-income East Asia, and a few countries in Southeast Asia (Indonesia and Malaysia). The net exporting countries will be India, and the Philippines while the net importers will be led by Japan, Taiwan, and South Korea. Japan will

Table 5—ASIA: Historical and projected production, consumption, and trade of oilseeds¹ by region

Region	Area	Yield	Pro- duc- tion	Con- sump- tion	Net im- ports
	<i>Mil. ha</i>	<i>Tons/ ha</i>	<i>Mil. tons</i>		
JAPAN					
1969-71	.2	1.6	.3	4.2	3.9
1979-81	.2	1.5	.3	5.8	5.6
1990	.3	1.9	.5	8.0	7.5
MID-INCOME:					
EAST ASIA:					
1969-71	.7	.7	.4	1.1	.6
1979-81	.3	1.2	.4	2.0	1.6
1990	.3	1.3	.4	2.9	2.5
S.E. ASIA:					
1969-71	3.3	1.4	4.7	3.8	-.8
1979-81	4.1	1.8	7.5	7.7	.2
1990	5.2	2.1	10.7	11.8	1.1
INDIA					
1969-71	24.3	.4	10.2	10.2	—
1979-81	26.3	.5	12.3	12.3	—
1990	30.0	.6	18.6	18.5	-.1
OTHER					
SO. ASIA					
1969-71	3.2	.6	2.0	2.0	—
1979-81	3.5	.7	2.3	2.3	—
1990	3.7	.7	2.6	2.6	—
TOTAL					
1969-71	31.7	.6	17.6	21.3	3.7
1979-81	34.4	.7	22.8	30.1	7.4
1990	39.5	.8	32.8	43.8	11.0

— = Less than 50,000 tons.

¹Basic coverage includes soybeans, cottonseed, peanuts, rapeseed, sunflowerseed, palm kernel, and copra. For some countries, additional oilseeds are included. In the case of India, for example, sesame, safflower, linseed, and nigerseed are added to the basic seven.

depend slightly less on imported oilseeds as a result of rapid increases in domestic soybean production and slower growth in crush demand.

Protein Meal

Asia's consumption of protein meal will grow at an average annual rate of 5 percent—somewhat faster than during the 1970's—and reach 19 million tons by 1990. Growth in meal consumption in Burma, the Philippines, and Thailand will be above the regional average because of significant increases in those countries' pork and poultry production. In India, ambitious government targets for milk and poultry production imply about a 6-percent annual growth in demand through the 1980's. Greater commercialization of livestock production in a number of countries will probably mean that use of concentrate feeds, including protein meal, will increase at more rapid rates than growth in livestock output.

Production of protein meal in Asia will expand at a rate of 4.3 percent a year through the 1980's and reach 18.8 million tons by 1990. More than two-thirds of the total will be produced in India and Japan.

In Japan and the middle-income countries of East Asia, where protein meal for feed use is viewed as the more important product, and where meal demand is expected to grow at a faster rate than that for oil, there may be a shift toward greater production and use of oilseeds with a high meal content.

In South Asia, where demand for livestock feed is limited and vegetable oil is considered of primary importance, the emphasis will probably continue to be on the production and crush of oilseeds with a high oil content.

Table 6—ASIA: Historical and projected production, consumption, and trade of protein meal¹ by region

Region	Production	Consumption		Net imports
		Total	Per capita	
	Million tons		Kgs	Million tons
JAPAN				
1969-71	3.2	3.4	33	.3
1979-81	4.0	4.4	37	.3
1990	5.7	6.8	53	1.1
MID-INCOME EAST ASIA				
1969-71	.6	.6	12	—
1979-81	1.4	1.5	25	.1
1990	1.8	2.2	31	.4
S.E. ASIA				
1969-71	.8	.5	2	— .4
1979-81	1.4	1.4	4	— .1
1990	2.4	2.5	6	.1
INDIA				
1969-71	3.6	2.8	5	— .8
1979-81	4.7	3.9	6	— .8
1990	7.9	7.0	8	— .9
OTHER SO. ASIA				
1969-71	.6	.6	3	—
1979-81	.9	.9	4	—
1990	1.0	1.0	3	—
TOTAL				
1969-71	8.8	7.9	7	— .9
1979-81	12.4	12.1	8	— .5
1990	18.8	19.5	11	.7

— = Less than 50,000 tons.

¹Coverage is the same as noted in table 5. All data converted to 44 percent soybean meal equivalent.

This situation in South Asia is, however, expected to change gradually during the 1980's as increased demand for livestock products boosts meal consumption and provides a stimulus to oilseed and meal production.

Overall Asian self-sufficiency in protein meal will drop slightly, from 104 percent during 1979-81 to 97 percent in 1990. Japan and middle-income East Asia will import relatively more meal through the 1980's. India will continue to be a net exporter of meal, but a larger share will likely be marketed domestically. Southeast Asia will switch from a net export to a net import position, mainly on the strength of greater meal demand from local livestock industries.

Vegetable Oils

Annual growth in Asian consumption of vegetable oils is projected to slow from 5.5 percent during the 1970's to about 4.6 percent during the 1980's. Slower growth in India, Asia's largest consumer, and in East Asia will offset more rapid growth in other South Asian countries and in most of Southeast Asia. Nevertheless, rising incomes and the increased use of vegetable oils in food preparation and in the manufacture of soaps and other nonfood items are expected to lead to greater per capita consumption in virtually every Asian country during the 1980's.

Growth in Indian vegetable oil consumption is expected to slow to about 3 percent annually during the 1980's, after a relaxation of import restrictions led to a sharp

Table 7—ASIA: Historical and projected production¹, consumption, and trade of vegetable oils² by region

Region	Production	Consumption		Net imports
		Total	Per capita	
	Million tons		Kgs	Million tons
JAPAN				
1969-71	.6	.6	6	—
1979-81	1.1	1.4	12	.3
1990	1.5	1.7	14	.2
MID-INCOME EAST ASIA				
1969-71	.2	.2	4	—
1979-81	.3	.4	6	.1
1990	.4	.6	8	.2
S.E. ASIA				
1969-71	2.0	1.0	3	— 1.0
1979-81	5.8	2.0	6	— 3.7
1990	10.5	4.6	10	— 5.9
INDIA				
1969-71	2.4	2.5	5	.1
1979-81	2.7	4.0	6	1.3
1990	4.2	5.4	6	1.2
OTHER SO. ASIA				
1969-71	.4	.9	5	.4
1979-81	.5	1.0	5	.5
1990	.6	1.6	6	1.0
TOTAL				
1969-71	5.6	5.2	4	— .5
1979-81	10.4	8.8	6	— 1.5
1990	17.2	13.9	8	— 3.3

— = Less than 50,000 tons.

¹Production from domestic and imported seeds. ²Basic coverage includes soybean, cottonseed, peanut, rapeseed, sunflowerseed, palm kernel, coconut, and palm oils. For some countries, additional oils are included. In the case of India, for example, sesame, safflower, linseed, and nigerseed oils are added.

increase in imports and consumption during the late 1970's. Faster consumption growth in Southeast and other South Asian countries, particularly Indonesia, the Philippines, and Pakistan, will stem from rising incomes, as well as national efforts to boost currently low per capita consumption.

Annual growth in Asian vegetable oil production is expected to slow to 5.2 percent in the 1980's, compared with 6.4 percent during the 1970's. Slower output growth will be caused by smaller projected gains in palm and coconut oil production in Malaysia, Indonesia, and the Philippines, particularly during the late 1980's, and slower growth in oil output from imported oilseeds in East Asia. In India, however, where production showed little growth during the 1970's, output of oilseeds and oils is expected to pick up in response to higher producer prices and government programs to boost acreage and yields. Only small gains in vegetable oil output are expected elsewhere in South Asia because of continued emphasis on grain production and the low profitability of oilseed cultivation.

With production growth continuing to outstrip increases in consumption throughout the 1980's, Asian net exports of vegetable oils, principally palm and coconut, will continue to increase from 1.5 million tons during 1979-81 to about 3.3 million by 1990. Indonesian exports are expected to end by 1990, leaving Malaysia and the Philippines as the only producers of surplus vegetable oil in Asia. Indian imports are expected to remain stable, averaging about 1.2 million tons annually through the 1980's, as rising domestic production partly offsets higher consumption. Import demand is expected to grow

most rapidly in Pakistan, Bangladesh, South Korea, and Singapore.

Cotton

Raw cotton consumption in Asia is projected to increase at an average annual rate of 1.8 percent, slightly faster than in the 1970's, reaching 19.8 million tons by 1990. The most rapid growth will take place in Southeast Asia, where labor costs in yarn and textile production are significantly less than in middle-income East Asia and Japan. Growth in Korea and Taiwan is expected to slow dramatically, while consumption in Japan and Hong Kong will decline.

Growth in cotton production will likely keep pace with the 1970's, with more than 90 percent of output concentrated in India and Pakistan. However, the most rapid growth will be in Burma and Thailand. Average yields for the region are expected to surpass one bale per hectare by 1990 and should contribute relatively more to production growth than expanded area will.

Asian self-sufficiency in cotton is expected to increase slightly from 61 percent during 1979-81 to 63 percent in 1990, leading to marginally less dependence on trade. Resource-poor Japan and middle-income East Asia will continue to be the region's most important net importers, and Pakistan and India will remain the principal exporters.

Implications for U.S. Agricultural Trade

These projections suggest that national policies in Asia will continue to emphasize food grain production, leading to slower import growth during the 1980's. Sustained growth in rice yields and production are expected to facilitate both a decline in Asian rice imports and an increase in exportable supplies. As a result, the 1980's will likely bring a continuation in the decline of Asia as a market for U.S. rice. On the other hand, Asian imports of wheat are expected to increase to about 19 million tons by 1990, principally on the strength of sustained growth in consumer demand in the nonproducing coun-

Table 8—ASIA: Historical and projected production, consumption, and trade of cotton by region¹

Region	Area	Yield	Pro- duc- tion	Con- sump- tion	Net im- ports
	Million ha	Bales ha	Million bales		
JAPAN					
1969-71	—	—	—	3.6	3.6
1979-81	—	—	—	3.3	3.3
1990	—	—	—	2.8	2.8
MID-INCOME:					
EAST ASIA:					
1969-71	—	—	—	1.9	1.8
1979-81	—	—	—	3.4	3.5
1990	—	—	—	3.7	3.7
S.E. ASIA					
1969-71	.2	.9	.2	.9	.8
1979-81	.3	1.3	.4	1.7	1.3
1990	.6	1.3	.8	2.9	2.1
INDIA					
1969-71	7.8	.7	5.1	5.4	.5
1979-81	8.1	.8	6.1	5.9	-.3
1990	8.4	.9	7.8	7.5	-.3
OTHER SO. ASIA					
1969-71	1.9	1.5	2.8	2.3	-.4
1979-81	2.2	1.6	3.5	2.2	-1.2
1990	2.2	1.7	3.8	2.9	-.9
TOTAL					
1969-71	9.9	.8	8.1	14.1	6.1
1979-81	10.6	1.0	10.0	16.5	6.6
1990	11.2	1.1	12.4	19.8	7.4

— = None or negligible.

¹Production, yield, consumption, and trade data in 480-lb bales.

Table 9—ASIA: Historical and projected trade indicators

Commodity	Imports			Exports		
	1969- 71	1979- 81	1990	1969 71	1979- 81	1990
<i>Million tons</i>						
Wheat	15.5 (53)	16.4 (55)	19.0	.1	.8	.7
Rice	4.5 (27)	4.4 (18)	3.5	3.2	6.8	8.3
Coarse grains	12.3	26.6 (50)	42.4 (72)	2.2	2.8	3.1
Oilseeds	4.6 (62)	7.7 (76)	11.7	.9	.4	.6
Protein meal	.4 (23) ¹	1.4 (17) ¹	2.4	1.3	1.9	1.8
Vegetable oil	.8 (26)	3.0 (16)	4.2	1.2	4.5	7.5
Cotton ²	6.9 (41)	8.4 (53)	9.1	.9	1.9	1.7

Note: Numbers in parentheses are U.S. percentage shares of Asian imports.

¹Excludes Southeast Asia. ²Million 480-lb bales.

tries of Southeast and middle-income East Asia. While Asia may continue to decline in importance as a market for U.S. wheat, the United States will probably still be the largest single supplier of wheat during the 1980's.

By contrast, Asian self-sufficiency in feedstuffs (feed grains, oilseeds, and protein meal) is projected to continue to decline during the 1980's. Land constraints and relatively rapid growth in the production of livestock products, particularly in Japan and middle-income East Asia, will assure a steady and growing market for exports of U.S. feedstuffs in the 1980's, although the rate of growth may be somewhat slower than in the 1970's. Despite some decline in the relative importance of the Asian market during the 1970's, about one-quarter of total U.S. feed grain and soybean exports are currently marketed in Asia, with more than 95 percent going to Japan and middle-income East Asia. The United States should continue to supply two-thirds to three-quarters of Asia's oilseed imports and 50 to 60 percent of its coarse grain purchases.

Asian imports of vegetable oils are projected to increase to about 4.2 million tons annually by 1990, but growing

exportable surpluses of palm and coconut oil may dampen growth in demand for imports from outside the region. Although U.S. vegetable oil exports to Asia, primarily soybean oil, increased during the 1970's, competition from palm and coconut oil and from Brazilian soybean oil led to a decline in the U.S. share of the Asian market. South Asian countries will continue to be the largest Asian buyers of U.S. soybean oil, with growth in the U.S. share of the market dependent on price competitiveness.

Asian cotton imports are expected to grow at only 1 percent a year through the 1980's, leading to only modest gains in U.S. cotton exports. Subregional projections indicate that the most rapidly growing import market will be Southeast Asia, in contrast to much slower growth in middle-income East Asia and a decline in Japan. U.S. competitiveness in Southeast Asia will be limited by increases in local production, as well as the area's proximity to Pakistan and India, the region's leading cotton-exporting countries. [Rip Landes and William Coyle (202) 447-8860]

APPENDIX TABLES

Appendix Table 1—Population and international reserves of selected countries in Asia and Oceania, 1979-81

Country	Population				International reserves			
	1979	1980	1981	Growth rate 1980 to 1981	1979	1980	1981	Change, 1980 to 1981
	Millions			Percent	Million dollars			Percent
SOUTH ASIA								
Afghanistan	21.0	17.5	17.0	-2.9	441	650	519	-20.2
Bangladesh	87.6	90.0	92.4	2.7	402	321	156	-51.4
India	677.0	692.3	707.8	2.2	7,716	7,228	5,270	-27.1
Nepal	13.8	14.2	14.5	-1.4	170	196	197	.5
Pakistan	79.1	81.4	83.8	2.9	941	1,684	1,507	-10.5
Sri Lanka	14.4	14.7	15.1	2.7	520	249	330	32.5
Total	892.9	910.1	930.6	2.3	10,190	10,328	7,979	-22.8
EAST ASIA								
Burma	33.3	34.0	34.8	2.2	215	272	300	10.3
Hong Kong	5.0	5.1	5.3	2.6	27,300	33,800	35,000	3.6
Indonesia	144.5	147.4	150.1	1.8	4,167	6,500	6,059	-6.8
Japan	115.9	116.9	117.8	.8	20,327	25,232	28,403	12.6
Korea, Rep. of	36.9	37.6	38.2	1.6	5,708	6,560	6,890	5.0
Malaysia	13.2	13.6	13.8	1.5	4,013	4,491	4,180	-6.9
Philippines	47.2	48.4	49.6	2.5	2,416	3,140	2,574	-18.0
Singapore	2.4	2.4	2.4	—	5,819	6,567	7,549	15.0
Taiwan	17.4	17.7	18.1	.3	3,880	5,300	5,870	10.8
Thailand	45.5	46.5	47.5	2.1	1,749	2,154	2,200	2.1
Total	461.3	469.6	477.6	1.7	75,549	94,016	99,025	5.3
SOUTHEAST ASIA								
Kampuchea	5.8	5.6	5.6	—	NA	NA	NA	NA
Laos	3.4	3.4	3.5	2.9	26	14	12	-14.3
Vietnam	52.2	53.2	54.3	2.1	145	123	110	-10.6
Total	61.4	62.2	63.4	2.0	171	137	122	-11.0
OCEANIA								
Australia	14.5	14.6	14.7	.7	5,100	6,412	4,787	-25.3
New Zealand	3.1	3.1	3.2	3.2	453	353	324	-8.2
Total	17.6	17.7	17.9	1.1	5,553	6,765	5,111	-24.5

NA = Not available.

— = None or negligible.

Sources: U.S. Bureau of Census, Department of Commerce; ERS estimates.

Appendix Table 2—Gross domestic product (GDP), agricultural contribution to GDP, and consumer price index (CPI) of selected countries in Asia and Oceania, 1979-81

Country	GDP (current prices)			Agricultural contribution to GDP			CPI		
	1979	1980	1981	1979	1980	1981	1979	1980	1981
	<i>Million dollars</i>			<i>Percent</i>					
SOUTH ASIA									
Afghanistan	2,900	NA	NA	49.0	NA	NA	NA	NA	NA
Bangladesh ¹	10,390	11,220	13,127	56.0	55.0	55.0	12.7	13.2	16.7
India ¹	122,630	150,210	166,700	33.0	34.9	34.0	4.6	15.1	14.0
Nepal	1,352	1,560	1,670	68.0	68.0	68.0	6.2	23.5	20.0
Pakistan	19,727	21,500	25,100	30.0	30.0	30.0	9.5	11.7	15.0
Sri Lanka	3,431	3,745	4,180	27.0	27.0	27.0	10.7	26.0	20.0
Total	160,430	188,235	210,777	34.6	35.7	35.0	5.8	14.8	14.4
EAST ASIA									
Burma ¹	5,160	6,000	6,720	47.0	45.0	45.0	5.6	3.3	4.0
Hong Kong ¹	17,500	19,300	22,195	1.0	1.0	1.0	14.8	15.0	15.0
Indonesia	49,637	70,024	79,800	29.0	25.7	25.0	21.8	15.9	7.1
Japan	1,011,800	1,053,700	1,157,466	4.8	4.8	4.7	3.6	7.6	4.9
Korea, Rep. of ¹	47,800	57,800	62,400	18.7	14.8	18.0	18.3	28.7	23.3
Malaysia	20,297	23,600	27,600	25.0	24.0	23.0	3.9	6.7	9.6
Philippines	30,082	36,700	42,425	20.0	20.0	20.0	18.8	17.8	11.8
Singapore	9,008	10,479	12,375	1.4	1.2	1.0	4.1	8.5	8.2
Taiwan	32,346	40,261	46,163	10.5	10.0	10.0	9.8	14.0	10.0
Thailand	26,682	32,834	36,016	22.3	23.0	22.9	9.9	19.7	12.7
Total	1,250,312	1,350,698	1,493,160	7.6	7.8	7.6	8.0	9.8	6.6
SOUTH AND EAST ASIA	1,410,742	1,538,933	1,703,737	10.6	11.2	11.0	7.7	10.4	7.6
OCEANIA									
Australia	121,404	140,158	157,400	6.4	8.0	7.0	9.1	10.2	9.8
New Zealand	21,387	23,281	23,900	11.4	9.0	8.8	13.6	17.2	15.3
Total	142,791	163,439	181,300	7.1	8.1	7.2	9.8	11.2	14.5

NA = Not available.

¹Gross National Product.

Note: 1980-81 figures exclude Afghanistan.

Sources: U.S. Bureau of Census, Department of Commerce; ERS estimates.

Appendix Table 3—Total export and imports, average 1975-78 and annual 1979-81

Country	Exports				Imports				Trade balance			
	1975-78	1979	1980	1981	1975-78	1979	1980	1981	1975-78	1979	1980	1981
	<i>Billion dollars</i>											
SOUTH ASIA												
Afghanistan	.3	.5	NA	NA	.3	.6	NA	NA	—	—	NA	NA
Bangladesh	.4	.6	.8	.7	1.3	1.9	2.4	2.5	—	—	—	—
India	5.9	8.0	8.5	8.7	7.0	11.3	15.8	16.0	—	—	—	—
Nepal	.1	.1	.1	.1	.1	.2	.3	.4	—	—	—	—
Pakistan	1.2	2.4	2.6	2.9	2.6	4.1	4.5	5.5	—	—	—	—
Sri Lanka	.7	1.0	1.1	1.2	.8	1.5	1.5	2.1	—	—	—	—
Total	8.6	12.6	13.1	13.6	12.1	19.6	24.5	26.5	—	—	—	—
EAST ASIA												
Burma	.2	.4	.5	.5	.4	.7	.8	.9	—	—	—	—
Hong Kong	8.6	15.2	19.6	21.9	9.5	17.2	22.3	24.9	—	—	—	—
Indonesia	9.5	15.6	21.9	23.5	5.9	7.2	10.8	12.5	—	—	—	—
Japan	73.9	101.2	126.5	149.5	59.7	99.4	124.6	129.6	—	—	—	—
Korea, Republic of	8.9	15.1	17.5	21.3	10.0	19.1	22.3	26.1	—	—	—	—
Malaysia	5.7	11.1	12.5	12.4	4.5	7.9	10.4	12.5	—	—	—	—
Philippines	2.8	4.5	5.8	5.9	4.3	6.6	6.4	8.4	—	—	—	—
Singapore	7.6	14.2	19.4	20.4	10.2	17.6	24.2	25.5	—	—	—	—
Taiwan	8.9	16.1	19.8	21.8	8.3	14.8	19.7	20.5	—	—	—	—
Thailand	3.2	5.3	6.5	7.8	4.2	7.2	9.5	10.4	—	—	—	—
Total	130.6	200.9	250.0	290.1	118.6	200.7	251.0	271.3	—	—	—	—
SOUTH AND EAST ASIA	139.2	213.0	263.1	303.7	130.8	220.1	275.5	297.8	—	—	—	—
OCEANIA												
Australia	13.2	18.7	22.0	21.8	11.9	16.5	20.3	23.8	—	—	—	—
New Zealand	3.0	4.7	5.4	5.2	3.1	4.3	5.0	5.5	—	—	—	—
Total	16.2	23.4	27.4	27.0	15.0	20.8	25.3	29.3	—	—	—	—

NA = Not available.

— = None or negligible.

Sources: International Financial Statistics, various country sources; ERS estimates.

Appendix Table 4 — Major U.S. agricultural exports¹ by SITC categories to Asia and Oceania², by quantity and value, 1979-81

Country and year	Animals and animal products ³	Animal fats and oils		Wheat and products		Rice, milled		Feed grains		Fruit, nuts, and prep.
	Million dollars	1,000 tons	Million dollars	1,000 tons	Million dollars	1,000 tons	Million dollars	1,000 tons	Million dollars	Million dollars
Australia										
1979	5.8	.2	.3	.5	.1	.4	.2	1.6	.2	10.6
1980	6.8	.2	.3	1.0	.1	.4	.3	.2	—	15.4
1981	7.0	.5	.8	1.6	.1	.4	.3	.2	—	23.3
Bangladesh										
1979	.5	9.6	4.8	457.6	72.6	2.0	.5	10.0	1.0	—
1980	.1	6.2	3.1	1,197.3	190.5	—	—	—	—	—
1981	.5	.2	.1	264.5	38.9	—	—	—	—	.2
Hong Kong										
1979	42.7	.9	.7	97.0	15.6	.1	—	—	—	81.0
1980	51.4	.9	.7	90.4	16.3	.5	.3	.3	—	93.7
1981	54.2	.3	.3	115.1	22.0	—	—	—	—	113.3
India										
1979	3.6	1.4	.8	356.9	72.4	—	—	10.1	1.5	3.4
1980	2.1	7.1	3.4	297.3	61.1	.1	—	16.3	3.7	3.4
1981	3.6	46.3	22.0	1,733.9	305.2	.1	—	24.4	4.3	5.2
Indonesia										
1979	2.9	.2	.2	632.4	104.2	302.9	88.6	—	—	4.7
1980	4.1	—	—	805.7	141.7	173.7	67.0	12.0	1.8	6.4
1981	5.4	—	—	739.3	132.9	91.4	45.9	3.4	.6	9.6
Japan										
1979	775.8	94.3	52.0	3,351.9	537.5	1.6	.5	12,291.2	1,448.1	297.9
1980	711.3	117.7	56.9	3,331.0	596.3	1.3	.6	15,737.9	2,140.3	296.0
1981	868.8	90.6	42.3	3,364.8	615.3	1.0	.5	15,031.3	2,235.3	325.8
Korea, Rep. of										
1979	173.3	103.3	56.0	1,678.3	257.9	163.9	44.2	2,783.6	323.1	6.5
1980	122.1	116.4	53.9	1,945.9	322.8	844.9	291.6	2,313.1	316.2	5.9
1981	157.5	82.7	37.5	2,032.5	357.9	968.1	418.9	2,349.3	340.0	10.1
Malaysia										
1979	1.6	—	—	48.4	7.8	5.9	2.1	.1	—	6.3
1980	2.3	—	—	84.4	15.1	—	—	4.7	.5	7.9
1981	1.3	—	—	120.7	21.7	—	—	—	—	11.2
New Zealand										
1979	1.9	—	—	—	—	.9	.4	—	—	9.8
1980	1.5	.1	.1	—	—	1.0	.6	—	—	9.9
1981	27.5	.1	.1	—	—	1.3	.8	12.7	1.5	12.9
Pakistan										
1979	.8	55.3	28.4	409.4	58.3	—	—	—	—	.1
1980	2.0	72.3	34.1	155.1	25.4	—	—	—	—	.1
1981	3.3	97.0	44.5	182.4	30.1	—	—	—	—	—
Philippines										
1979	9.2	5.0	3.2	911.9	144.9	—	—	25.0	2.7	2.3
1980	9.1	7.7	4.2	775.8	146.7	—	—	197.4	26.0	2.1
1981	10.0	6.9	3.4	858.3	162.7	.1	.1	178.8	29.6	3.7
Singapore										
1979	19.4	.2	.2	77.0	9.2	2.7	1.0	23.4	3.3	21.3
1980	26.7	.4	.5	59.6	10.1	5.6	2.1	67.7	9.2	28.6
1981	36.8	.3	.4	118.6	21.9	3.5	1.5	247.2	39.8	30.5
Sri Lanka										
1979	.2	—	—	151.3	21.4	—	—	—	—	—
1980	.1	—	—	149.9	24.6	—	—	—	—	—
1981	.1	—	—	341.9	55.9	—	—	—	—	.1
Taiwan										
1979	51.4	20.6	10.2	779.1	116.7	—	—	2,308.7	287.5	39.9
1980	58.9	44.6	19.7	550.5	103.7	—	—	2,321.3	315.3	40.8
1981	61.0	25.3	11.0	629.8	120.7	—	—	2,200.3	345.6	50.5
Thailand										
1979	2.5	.2	.2	98.7	17.2	2.2	.6—	1.6	—	—
1980	3.1	.1	.1	76.1	14.7	—	—	.4	.1	2.0
1981	3.0	.1	.1	127.8	26.1	.1	—	—	—	2.9

See footnotes at end of table.

Continued

Table 4—Major U.S. agricultural exports by SITC categories to Asia and Oceania, by quantity and value, 1979-81—Cont'd.

Vegetables and preparations	Soybeans		Oilcake and meal		Vegetable oils and waxes		Tobacco		Raw cotton	
Million dollars	1,000 tons	Million dollars	1,000 tons	Million dollars	1,000 tons	Million dollars	1,000 tons	Million dollars	1,000 tons	Million dollars
8.9	12.7	3.7	5.6	1.5	24.5	18.3	5.6	27.1	—	—
9.4	31.1	9.0	17.3	4.7	18.2	13.1	6.1	30.0	.3	.4
16.0	20.8	6.6	4.9	1.5	21.5	14.7	5.7	32.9	.2	.3
—	—	—	—	—	53.0	38.9	—	—	18.1	25.4
.2	—	—	—	—	10.0	7.3	.1	.4	13.1	19.4
—	—	—	—	—	25.3	15.6	.1	.7	5.6	10.7
21.1	—	—	.4	.1	3.1	3.9	2.1	10.5	95.9	129.5
25.7	.2	.1	.4	.1	4.5	5.1	2.4	11.6	106.5	150.7
28.7	—	—	.2	.1	7.0	6.9	1.9	10.7	47.1	76.7
.2	—	—	.2	.1	225.6	166.0	.1	.2	.1	.2
1.5	—	—	.2	.1	368.9	229.7	—	—	—	—
4.2	—	—	—	—	122.7	80.9	—	.3	.1	.1
1.0	105.8	27.9	17.8	4.4	.4	.6	.4	1.6	52.4	81.2
2.0	202.9	57.5	18.6	4.6	.4	.7	2.2	13.5	66.3	112.3
1.6	302.6	86.7	.1	—	.4	.8	2.5	14.7	50.3	92.1
86.0	3,707.2	1,031.9	210.5	50.6	49.9	37.9	43.5	228.7	308.6	449.7
121.2	4,032.9	1,105.2	245.7	65.2	36.6	25.3	37.3	197.2	309.5	525.9
186.1	4,001.4	1,137.9	84.6	23.6	84.2	54.2	53.1	301.7	279.6	503.6
2.2	421.8	116.8	77.9	18.3	3.4	3.9	5.9	32.8	287.6	397.8
3.4	564.4	155.5	—	—	5.0	5.1	6.2	45.3	304.5	466.4
4.2	424.6	124.0	38.7	9.7	5.1	6.0	4.9	39.9	286.3	489.5
1.6	—	—	—	—	.5	.6	3.8	22.4	11.6	16.2
2.3	40.9	10.8	—	—	.1	.2	3.8	25.2	8.9	14.0
3.0	89.9	25.1	—	—	.6	.6	3.1	23.0	7.1	12.1
.5	—	—	1.6	.4	14.2	10.9	1.8	8.1	—	—
.6	—	—	3.9	1.1	17.0	11.2	1.7	8.1	—	—
1.2	.1	—	2.2	.6	19.5	12.3	1.6	8.0	—	—
—	—	—	—	—	163.6	108.2	.1	1.0	.2	.4
—	—	—	—	—	150.9	92.2	.3	2.1	.3	.7
.1	—	—	—	—	181.7	94.9	.4	2.8	.4	1.0
2.1	—	—	24.9	6.1	6.4	4.6	5.2	26.9	25.3	33.3
2.0	24.8	6.0	16.3	3.4	3.1	2.3	5.2	29.1	31.7	46.2
4.0	47.3	13.7	—	—	4.7	3.5	5.1	31.4	14.4	22.6
7.5	—	—	8.5	2.2	2.4	2.4	1.1	4.1	4.4	6.1
12.0	22.6	5.9	29.0	6.6	2.6	3.0	.8	2.6	6.3	9.9
11.6	—	—	—	—	16.0	12.5	.9	4.2	1.6	2.7
—	—	—	—	—	—	—	—	—	4.0	8.2
.1	—	—	—	—	1.2	.9	—	—	.7	1.3
.1	—	—	—	—	.3	.2	—	—	—	—
5.6	1,100.7	308.9	—	—	.9	1.5	18.8	92.5	107.2	135.6
8.4	935.8	261.7	10.5	2.8	1.0	1.3	6.4	37.0	148.7	203.3
10.8	1,052.8	314.2	.4	.1	1.8	3.3	10.1	62.9	75.4	112.4
.9	—	—	—	—	.7	1.1	8.5	36.1	56.7	83.0
2.3	—	—	9.1	2.5	2.8	3.5	10.3	47.8	45.9	72.8
1.4	—	—	9.3	2.3	8.8	6.6	8.4	41.8	44.4	82.2

— = None or negligible.

¹Columns may not add to totals in Table 5 because of the exclusion of items such as seeds, other oilseeds, and blended food products. ²Countries not included receive little or no agricultural products from the United States. ³Excluding animal fats and oils.

Sources: Bureau of the Census, U.S. Department of Commerce and Foreign Agricultural Service, U.S. Department of Agriculture.

**Appendix Table 5—Agricultural exports and imports of selected countries
in Asia and Oceania, 1979-81**

Country	Exports			Imports			Trade balance
	1979	1980	1981	1979	1980	1981	1981
<i>Million U.S. dollars</i>							
SOUTH ASIA							
Afghanistan	213	NA	NA	113	NA	NA	NA
Bangladesh	633	760	670	414	417	420	250
India	2,363	2,390	2,500	1,270	1,480	1,890	610
Nepal	68	57	98	40	44	50	48
Pakistan	554	820	925	812	795	850	75
Sri Lanka	660	700	730	405	472	450	280
Total	4,491	4,727	4,923	3,054	3,208	3,660	1,263
EAST ASIA							
Burma	291	369	429	22	23	21	408
Hong Kong	541	651	918	3,000	3,500	3,400	-2,482
Indonesia	1,970	2,600	3,200	1,279	1,564	1,780	1,420
Japan	834	881	1,106	16,424	17,670	18,600	-17,494
Korea, Rep. of	503	700	741	2,755	2,990	4,250	-3,509
Malaysia	3,681	4,007	3,800	1,032	1,200	1,140	2,660
Philippines	1,688	1,980	1,700	455	595	675	1,025
Singapore	1,301	3,161	3,000	1,718	3,062	3,000	—
Taiwan	1,535	1,700	1,670	2,461	2,750	3,057	-1,387
Thailand	3,263	3,704	4,250	449	648	775	3,475
Total	15,607	19,753	20,814	29,595	34,002	36,698	-15,884
SOUTH AND EAST ASIA	20,098	24,480	25,737	32,649	37,210	40,358	-14,621
OCEANIA							
Australia	8,308	9,335	8,750	892	988	1,100	7,650
New Zealand	3,118	3,481	3,850	311	357	390	3,460
Total	11,426	12,816	12,600	1,203	1,345	1,490	11,110

NA = Not available.

— = None or negligible.

Sources: Food and Agricultural Organization (FAO), United Nations; Foreign Agricultural Service, USDA; various country sources; ERS estimates.

Appendix Table 6—U.S. agricultural exports to and imports from Asia and Oceania, 1979-81

Country	Exports			Imports			Trade balance
	1979	1980	1981	1979	1980	1981	1981
<i>Million dollars</i>							
SOUTH ASIA							
Afghanistan	3.2	—	.1	10.0	2.6	8.4	-8.3
Bangladesh	144.5	221.3	67.8	4.0	2.9	5.5	62.3
India	260.9	317.5	476.2	189.0	166.9	200.3	275.9
Nepal	1.8	7.4	3.2	.4	.3	.3	2.9
Pakistan	198.6	157.8	178.7	3.1	2.5	2.6	176.1
Sri Lanka	31.6	30.1	61.3	48.8	41.0	41.8	19.5
Total	640.6	734.1	787.3	255.3	216.2	258.9	528.4
EAST ASIA							
Burma	.8	.1	—	—	—	—	—
Hong Kong	361.3	436.6	393.9	31.0	42.4	49.3	344.6
Indonesia	322.4	414.1	401.2	751.8	769.0	655.9	-254.7
Japan	5,255.3	6,110.7	6,562.3	89.1	99.0	120.5	6,441.8
Korea, Rep. of	1,440.8	1,797.4	2,008.4	74.2	47.7	31.4	1,977.0
Malaysia	64.0	87.6	109.7	414.2	349.6	333.3	-223.6
Philippines	262.5	319.2	323.5	576.6	591.7	563.7	-240.2
Singapore	91.7	135.0	183.5	72.9	66.6	67.1	116.4
Taiwan	1,073.6	1,095.1	1,144.6	126.7	154.9	135.5	1,009.1
Thailand	157.7	161.9	179.6	115.4	143.1	229.7	-50.1
Total	9,030.1	10,557.7	11,306.7	2,251.9	2,264.0	2,186.4	9,120.3
SOUTH AND EAST ASIA	9,670.7	11,291.8	12,094.0	2,507.2	2,480.2	2,445.3	9,648.7
OCEANIA							
Australia	99.9	109.8	127.5	1,105.1	1,153.0	1,060.7	-933.2
New Zealand	36.2	37.1	69.2	626.5	612.1	588.2	-519.0
Total	136.1	146.9	196.7	1,731.5	1,765.1	1,648.9	-1,452.2

— = None or negligible.

Sources: U.S. Bureau of Census, Department of Commerce; ERS estimates.

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